Subcommittee on Interior, Environment and Related Agencies
Hearing on
"The Fiscal Year 2020 Environmental Protection Agency Budget"
April 2, 2019

The Honorable Andrew Wheeler, Administrator
U.S. Environmental Protection Agency

Questions Submitted for the Record by Chairman McCollum

STAFFING PLANS FOR THE AGENCY

During the hearing, I told you that I that EPA couldn't shrink anymore if it was going to be able to fulfill its mission to protect public health and the environment. You said you wanted to leave the agency stronger than you found it, particularly when it comes to the workforce.

Question: Do you stand by the president's request to reduce the agency workforce to 12,415 FTE?

Answer: The FTE level in the President's Budget provides the necessary personnel to enable the EPA to support its core mission and fulfill statutory obligations. The budget request supports the President's goal of a more effective and efficient government for the American people. The budget supports core statutorily required environmental programs and eliminates many mature, duplicative or voluntary programs.

Question: The president requested approximately $25 million dollars to offer incentives to current EPA employees to leave the agency. Do you support the president's request for funds for voluntary early retirements and staff buyouts?

Answer: The Agency supports the request for workforce reshaping program funds. To achieve the FTE level in the President's Budget, the Agency would analyze mission requirements and evaluate options to achieve it through a combination of attrition, reassignments, or Voluntary Early Retirement Authority (VERA) or Voluntary Separation Incentive Pay (VSIP). The EPA has been managing staffing levels to ensure the Agency is able to efficiently meet its goals and objectives. Changes to individual programs are being managed through attrition and strategic hiring. The request for workforce reshaping resources will provide the EPA the flexibility to realign work assignments to support the Agency's highest priority work.

Question: Please explain in your own words how you believe reducing the agency workforce by roughly 20% would leave the agency stronger than you found it.

Since the beginning of this Administration, the EPA has seen a precipitous decline in the number personnel at the agency. In fiscal year 2017, EPA pursued an aggressive buyout strategy, and since that time, EPA staffing levels have continued to decline, in spite of agency funding

increasing in 2018, and then again in 2019. In fact, the number of staff on-boards has continued to decline in FY 2018 and FY 2019 in spite of direction from the committees to maintain target staffing levels.

Answer: My priority is to ensure that EPA programs have the right mix of personnel and contract and grant resources needed to protect human health and the environment. It is not about a specific number and more about ensuring the Agency has qualified staff in the right positions to ensure we advance our mission essential work.

Question: Please provide the subcommittee EPA target staffing levels for FY 2017, FY 2018, and FY 2019 by program office and region.

Answer: Please see the below chart.

Office	FY 2017 Target FTE	FY 2018 Target FTE	FY 2019 Target FTE
Office of the Administrator (OA)	391.4	350.3	387.3
Office of Air & Radiation (OAR)	1,145.3	1,086.7	1,086.7
Office of Administration & Resource Management (OARM)	735.4	667.4	666.5
Office of the Chief Financial Officer (OCFO)	344.4	319.9	320.2
Office of Chemical Safety and Pollution Prevention (OCSPP)	1,001.8	974.9	967.2
Office of Enforcement and Compliance Assistance (OECA)	768.3	690.1	649.1
Office of Environmental Information (OEI)	396.3	377.6	365.8
Office of the General Counsel (OGC)	229.8	224.9	224.9
Office of the Inspector General (OIG)	318.1	270.0	270.0
Office of International and Tribal Affairs (OITA)	80.3	68.1	68.1
Office of Land and Emergency Management (OLEM)	502.9	463.3	469.4
Office of Research & Development (ORD)	1,703.9	1,513.9	1,513.9
Office of Water (OW)	582.4	547.3	565.3
Region 1, Boston	590.1	541.8	541.8
Region 2, New York	783.6	723.8	723.8
Region 3, Philadelphia	782.5	724.6	724.6
Region 4, Atlanta	945.6	869.9	869.9
Region 5, Chicago	1,077.3	995.7	995.7
Region 6, Dallas	755.5	684.3	684.3
Region 7, Kansas City	496.6	455.4	455.4
Region 8, Denver	527.5	484.8	484.8
Region 9, San Francisco	717.8	654.5	654.5
Region 10, Seattle	531.3	482.8	482.8
FTE Total	**15,408.1**	**14,172.0**	**14,172.0**

Question: Please provide FTE on-boards data by month, for headquarters and within each region by program office, beginning from the start of FY 2018.

You testified that EPA staff technical expertise is rivaled only by the Nuclear Regulatory Commission in terms of the level of expertise needed to do the agency's work. It is therefore particularly distressing to see that as staff have left or retired, EPA has had only limited success in replacing that expertise, seriously eroding in EPA's ability to competently protect public health and the environment in the manner that Congress intended and that the American people expect.

Answer: See attached report titled "EPA Monthly Onboards."

EPA Monthly Onboards: FY 2018 through FY 2019 (through March 25, 2019)										
Program/ region	**10/3/2017**	**11/3/2017**	**12/19/2017**	**1/2/2018**	**2/1/2018**	**3/1/2018**	**3/26/2018**	**4/30/2018**	**5/29/2018**	**6/24/2018**
OA	355.5	353.5	354.5	352.5	353.5	350.5	350.5	373.0	376.0	372.0
OAR	1,106.0	1,106.0	1,109.0	1,109.0	1,089.0	1,087.5	1,085.0	1,072.0	1,067.0	1,065.5
OARM	657.5	655.5	650.5	646.5	641.5	639.5	635.5	629.5	625.5	627.5
OCFO	293.0	294.0	296.0	295.0	292.0	289.0	291.0	297.0	296.0	293.0
OCSPP	978.5	973.0	965.5	952.5	946.0	945.0	946.0	941.5	937.5	945.5
OECA	668.0	667.0	673.5	671.5	672.5	673.5	671.5	637.5	630.5	629.0
OEI	319.0	316.5	315.5	318.5	318.5	318.0	318.0	314.0	313.5	311.5
OGC	222.0	220.5	221.5	219.5	218.0	217.0	218.0	220.0	219.0	218.0
OIG	267.0	263.0	256.0	255.5	253.5	252.5	255.5	256.5	264.0	267.5
OITA	72.5	71.5	72.5	72.5	70.5	69.5	66.5	66.5	68.5	66.5
OLEM	474.5	473.5	467.5	468.5	468.5	469.5	472.0	472.0	473.0	476.0
OMS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORD	1,609.5	1,601.0	1,592.5	1,584.5	1,564.5	1,559.5	1,551.5	1,546.0	1,537.5	1,526.0
OW	551.5	551.5	546.5	544.5	542.5	540.0	538.5	535.5	530.5	529.5
R01	511.5	510.0	511.0	508.5	507.5	508.5	510.0	509.0	511.0	512.0
R02	756.0	754.0	754.5	751.5	749.5	750.0	750.0	750.0	748.0	748.0
R03	770.0	769.5	768.5	765.5	763.5	760.5	758.5	756.0	754.0	749.5
R04	882.0	880.0	876.0	872.0	862.5	860.5	859.5	855.5	852.0	853.0
R05	1,015.0	1,012.0	1,010.5	1,006.0	1,004.0	1,001.0	1,001.5	997.5	993.5	990.5
R06	708.0	705.5	706.5	699.5	693.5	694.5	694.5	693.0	691.0	688.0
R07	468.0	468.0	467.0	466.5	462.5	462.0	460.5	454.5	454.0	450.0
R08	509.5	510.5	505.5	502.5	501.5	500.0	500.0	493.0	493.0	492.0
R09	706.0	703.0	698.5	698.5	694.5	693.5	690.0	684.0	684.5	680.0
R10	520.0	514.0	512.0	511.5	502.0	500.0	498.5	489.5	488.0	484.0
EPA Total	**14,420.5**	**14,373.0**	**14,331.0**	**14,272.5**	**14,171.5**	**14,141.5**	**14,122.5**	**14,043.0**	**14,007.5**	**13,974.5**

Question: Has EPA conducted a workforce analysis to identify any deficiencies in technical expertise the agency needs in order to do its work? Please provide the committee with those analyses, or if the analyses are in progress, when the agency expects to complete these analyses. If EPA does not have plans to conduct such analyses, please explain why.

Answer: EPA recently hired a new human resources director, whose focus is on workforce and succession planning. She briefed committee staff on April 29, 2019. As she explained in the briefing, the EPA continues to analyze workforce needs and engage in enterprise workforce planning activities to identify targeted recruitments for meeting mission needs. EPA is in process of updating its strategic workforce plan; the results will be used to create an updated succession plan. EPA anticipates completing this work during FY 2020. In addition, EPA has piloted an online competency assessment tool for workforce planning to help each program and regional office understand the specific skill sets in place within their organizations and any existing competency gaps.

Question: The number of staff currently at the agency is well below the target FTE level for FY 2019. Has EPA developed a plan to achieve the target FTE level it has set for FY 2019? By when does the agency expect to achieve the target FTE level? If it has no plans to achieve the agency's FTE target, please explain how this is consistent with the directives given to the agency by the Appropriations Committees?

Answer: The EPA has been managing staffing levels to ensure it is able to meet its goals and objectives and advance its mission. This has been challenging as a significant share of EPA's

workforce is eligible for retirement and have been doing so. EPA's intent is to meet the target FTE levels through strategic hiring in programs that support the Agency's highest priority work. Regional and national program offices are currently working to onboard new hires to support priority areas and programs will continue to work to reach their FTE targets. As part of the EPA Lean Management System, programs meet on a monthly basis to examine their current levels relative to the targets and identify ways to meet the target.

EPA Monthly Onboards: FY 2018 through FY 2019 (through March 25, 2019) [continued]

Program/ region	7/30/2018	8/27/2018	10/1/2018	11/26/2018	12/31/2018	1/28/2019	2/25/2019	3/25/2019
OA	370.0	367.0	364.0	359.0	361.0	359.0	358.5	358.5
OAR	1,058.5	1,060.5	1,066.5	1,068.5	1,062.5	1,060.5	1,058.5	1,052.0
OARM	623.5	619.5	621.5	0.0	0.0	0.0	0.0	0.0
OCFO	299.0	298.0	294.0	292.5	291.5	289.5	287.5	290.0
OCSPP	951.0	956.0	967.5	966.0	950.5	949.0	947.5	950.5
OECA	628.0	622.0	620.0	609.0	602.0	598.0	604.5	610.0
OEI	312.5	313.5	309.0	0.0	0.0	0.0	0.0	0.0
OGC	215.0	217.0	218.0	216.5	216.5	216.5	220.5	220.5
OIG	268.5	267.0	269.0	268.0	266.0	266.0	266.5	266.5
OITA	65.5	65.5	67.5	70.5	69.5	70.5	70.5	71.5
OLEM	472.0	468.0	465.0	460.5	455.5	453.5	448.0	448.5
OMS	0.0	0.0	0.0	932.5	940.5	939.5	940.0	950.0
ORD	1,509.5	1,504.5	1,496.0	1,471.0	1,449.5	1,440.0	1,434.5	1,430.5
OW	529.5	533.5	533.0	527.0	527.0	526.5	531.5	535.5
R01	512.0	507.5	506.5	505.0	497.5	494.5	496.5	498.5
R02	746.0	744.0	735.0	729.0	721.5	715.5	717.5	717.5
R03	742.5	740.0	733.0	725.0	720.5	714.5	720.0	718.0
R04	851.0	853.0	852.0	852.0	843.5	838.5	837.5	836.5
R05	976.5	970.5	973.5	969.5	964.0	962.0	958.5	957.0
R06	688.0	686.0	688.0	688.5	680.5	673.5	672.5	671.5
R07	448.5	450.5	460.0	465.0	463.0	462.0	460.0	461.0
R08	490.5	487.0	486.5	478.5	478.5	476.5	483.5	481.5
R09	678.0	672.5	664.0	655.5	648.0	647.0	650.5	647.5
R10	481.5	481.5	494.5	497.5	489.0	486.5	485.5	482.0
EPA Total	**13,917.0**	**13,884.5**	**13,884.0**	**13,806.5**	**13,698.0**	**13,639.0**	**13,650.0**	**13,655.0**

[1]Work schedule definition: F-full time, P-part time & R-phased retirement (excludes intermittent employees)

[2]Position tenure includes all employees (permanent and temporary)

[3]FTE Estimate = (1.0 x F) + (0.5 x P) + (0.5 x R)

[4]Onboards include appropriated and non-appropriated funding.

[5]On November 26, 2018 OARM and OEI merged to create OMS.

IRIS ASSESSMENTS

During the hearing, you stated that the reason why formaldehyde was dropped from the IRIS risk assessment was because no office requested that the assessment be done. However, according to GAO, shortly after the IRIS program dropped its risk assessment of formaldehyde, the Office of Pollution Prevention and Toxics (OPPT) acted to designate it as a high priority, and began its own risk assessment for formaldehyde.

Question: Why would OPPT begin its own risk assessment to determine if formaldehyde should be regulated under that law, but not request the IRIS program to continue its risk assessment work?

Answer: The EPA designated formaldehyde as a High-Priority Substance. However, a formaldehyde risk evaluation work under TSCA does not mean that the work done under IRIS will be lost. The IRIS work will inform the TSCA process. By using our TSCA authority, the EPA will be able to take regulatory steps; IRIS does not provide this authority. Upon completion of the statutory risk evaluation process (including the requirement for completion within 3 years with an option for an extension of up to 6 months), the EPA will have determined whether or not each condition of use identified for the chemical presents an unreasonable risk of injury to health or the environment. TSCA requires that the EPA take risk management action to address any unreasonable risk identified in the risk evaluation, a requirement that does not follow an IRIS assessment.

Question: The Toxic Substances Control Act (TSCA) has numerous statutory timeframes within it that limits the speed with which the agency might act to regulate a chemical. Why not complete the IRIS assessment while concurrently moving to regulate formaldehyde under TSCA?

Answer: The IRIS evaluation covers hazard and dose response evaluation. The TSCA evaluations provide an evaluation of risk including exposure and risk characterization. IRIS evaluations can inform TSCA risk evaluations, but any potential regulatory actions under TSCA result from determinations made as part of the TSCA risk evaluation. Regarding the IRIS evaluation, there are still additional steps in the IRIS process that have not been completed and that are required before a final IRIS assessment is available. However, compared to TSCA assessments, an IRIS assessment does not have similar statutory requirements for risk management, nor is it subject to any timeline for completion.

Question: Was David Dunlap the signing official on behalf of ORD for these of these assessments?

Answer: No. A formal process was used, with sign off at the Assistant Administrator level within the Program offices, to identify updated IRIS priorities. Program offices identified what IRIS assessments were a priority, as well as when and why they were needed. The EPA's Office of Research and Development (ORD) consolidated input on high-priority assessment needs and presented this information to then Acting Administrator Wheeler. Upon receiving the final list of program office priority assessments, ORD drafted a memorandum to inform the Agency about which high-priority assessments would be developed in the IRIS Program. This memorandum, signed by the Principal Deputy Assistant Administrator for Science (Jennifer Orme-Zavaleta), was transmitted to Agency administrators and deputies on December 4, 2018.

Question: Prior to Mr. Dunlap's voluntary recusal on formaldehyde, did he participate in any matters related to the IRIS program's assessment of formaldehyde? If so, how? Please be very specific.

Answer: When Mr. Dunlap joined EPA and the Office of Research and Development (ORD), he was provided information on the status of IRIS assessments being developed, including formaldehyde, along with information on the IRIS nominations process in 2018. ORD staff did not give him a briefing or a copy of the draft IRIS assessment on formaldehyde.

Question: Does Mr. Dunlap's recusal on formaldehyde extend to formaldehyde-related matters outside of the IRIS program while at the agency?

Answer: Pursuant to 5 C.F.R. § 2638.304, Mr. Dunlap met with the EPA's Ethics Office for initial ethics training. At that time, pursuant to Executive Order 13770, he signed the Trump Ethics Pledge under which he cannot participate personally and substantially in any particular matter involving specific parties that is directly and substantially related to his former employer, Koch Industries. The Executive Order itself defines "particular matter involving specific parties" as having the "same meaning as set forth in section 2641.(h) of title 5, Code of Federal Regulations, except that it shall also include any meeting or other communication relating to the performance of one's official duties with a former employer or former client, unless the communication applies to a particular matter of general applicability and participation in the meeting or other event is open to all interested parties." *See* E.O. 13770 at Section 2, paragraph(s). Thus, the pledge restriction limits Mr. Dunlap from participating in *specific party matters*, including any meeting with his former employer unless the subject matter of the meeting itself is a matter of general applicability and is attended by more entities than just Koch Industries. To be clear, the formaldehyde IRIS assessment is not a specific party matter but instead is a matter of general applicability.

Mr. Dunlap's December 19, 2018 recusal statement memorializes his obligation to recuse himself from certain matters involving his former employer as well as his spouse's employer. Although not required by the pledge or federal ethics law or regulation, his statement also includes a voluntary recusal from any matters related to the formaldehyde IRIS assessment, which is a matter of general applicability. To avoid even the appearance of any loss of impartiality, Mr. Dunlap chose to voluntarily recuse himself from participating in any matters related to the formaldehyde IRIS assessment given his previous extensive involvement in this specific issue with his former employer. Thus, his voluntary recusal is limited only to the formaldehyde IRIS assessment and does not extend to formaldehyde-related matters outside of the IRIS program.

Question: Did EPA obligate funds to conduct this study? If not, why not?

Answer: Yes, the EPA did obligate funds in FY 2017 for conducting this study.

SUPERFUND

EPA has made accelerating the cleanup of contaminated lands a top priority for the agency's work. This is an area of bipartisan interest, because we all agree that people deserve to

be protected from toxic substances in the environment, and that the companies responsible for causing the contamination should pay to clean it up.

Unfortunately, there are many sites for which no responsible party can be identified. In those situations, EPA leads cleanup activities from funds appropriated to the Hazardous Substances Superfund account. For those sites, Congress will need to provide funding to ensure that the American people are protected from these risks.

The EPA Superfund Task Force has made a number of recommendations to accelerate the pace of cleanups. Sadly, one area where the Task Force was completely silent was ways to better analyze the program's future liabilities for cleanups. This information is critical in order to give the Congress and the public information about the scale of risks, scale of needs, in particular funding needs, and the expected rate of progress for cleanups.

Question: Will EPA commit to working with Members of the Subcommittee to develop metrics for the Superfund program, and to develop estimates for future liabilities and funding needs for fund-led cleanups?

Answer: EPA is available to discuss with Members of the Subcommittee its Superfund metrics and potential approaches to developing methodologies for estimating future liabilities for fund-led cleanups.

Question: In 2017, EPA's Office of Inspector General (OIG) issued a report (Report No. 17-P-0397) which found that EPA's distribution of personnel did not support regional workloads. In that report, EPA committed to taking a number of corrective actions to address the deficiencies identified by the IG. Please provide a detailed update on EPA's progress on implementing each of the four agreed-upon corrective actions. Please provide the Committee with a copy of the multi-year regional full-time equivalents (FTE) plan that EPA agreed to develop.

Answer: The Agency agreed to implement corrective actions to address issues raised within the Office of the Inspector General's (OIG) report. We provided the final response to the OIG on October 1, 2019. The status of the corrective action:

> Corrective Action 1.1 – The Office of Land and Emergency Management (OLEM) will meet with the Office of the Chief Financial Officer (OCFO) to discuss regional FTE distribution issues for the Superfund program.
>
> Status: Complete. OLEM met with OCFO on March 14, 2018 to discuss regional FTE distribution.
>
> Corrective Action 1.2 - OLEM will partner with OCFO to develop a multi-year regional FTE distribution plan for the Superfund program.

Status: Complete. OLEM, working with OCFO, the Office of Enforcement and Compliance Assurance (OECA), and regional offices, developed a multi-year regional FTE distribution plan. We are currently working on the timing of the plan's implementation.

Corrective Action 2 - OLEM will review the United States Army Corps of Engineers (USACE) and Naval Facilities Engineering Command workload management and full-time equivalent distribution practices to determine their applicability to the Superfund program.

Status: Complete. OLEM researched these practices to determine applicability to the Superfund program. The review determined these practices are not well suited for EPA.

Corrective Action 3 - OLEM will work with OECA, OCFO, and the Regions to develop a multi-year regional FTE distribution plan for the Superfund program.

Status: Complete. OLEM, working with OCFO, OECA, and regional offices, developed a multi-year regional FTE distribution plan. We are currently working on the timing of the plan's implementation.

Corrective Action 4 - OLEM will solicit input from OECA, OCFO and the Regions to respond to the OIG's recommendations.

Status: Complete. OLEM solicited input from OECA, OCFO, and the Regions in a review of the USACE and NAVFAC hazardous material ranking system and in the development of a multi-year regional FTE redistribution plan.

POLYMET MINING

During the hearing, you testified that you have encouraged your Regional Administrators to work more cooperatively with states, and that Region 5 Administrator undertook so-called 'action days' where EPA staff met face to face with state officials on issues such as permits. You mentioned two other instances in Region 5 where such meetings occurred, once with Wisconsin officials, and once on a Concentrated Animal Feeding Operation (CAFO) in Ohio.

Question: Please provide additional details regarding these two meetings, including dates, who was present in those meetings, and brief descriptions regarding the topics that were covered.

Answer: Face-to-face meetings and conversations with state regulatory partners is a common practice at EPA. Complex issues can benefit from these more personal interactions. Written back and forth communication can lead to delays and misunderstanding, hence the action days concept was encouraged to promote frequent and active conversations with staff experts and better serve the agency's partners.

Two examples are the proposed Wisconsin Concentrated Animal Feeding Operation (CAFO) transfer, and the pending Ohio CAFO program transfer. These two examples demonstrate how earlier, and more frequent interactions and collaboration can help avoid delays. In the instance of the Ohio transfer, Region 5 actively reengaged to bring about a resolution to a matter that has gone unresolved for some time. In fact, it was the focus of a recent Inspector General inquiry that looked at the lengthy review process. To avoid similar delays, the Region encouraged very early and frequent communication with Wisconsin to avoid the sort of delays that occurred in Ohio. What follows is a summary of those two efforts:

1. Wisconsin CAFO Program Transfer: On October 17, 2018, EPA Region 5 hosted a meeting on Wisconsin CAFO program transfer with representatives from Wisconsin Department of Natural Resources (WDNR) and Wisconsin Department of Agriculture, Trade and Consumer Protection (WDATCP) at Region 5's Chicago office. Topics discussed included: National Pollutant Discharge Elimination System (NPDES) program transfers generally; division of responsibilities between WDNR and WDATCP; NPDES program components that WDATCP likely does not need to assume; required statutory authorities that WDATCP does need to assume; regulatory authorities required for a CAFO program; and follow-up questions, next steps, and project assignments.

2. Ohio CAFO Program Transfer: On March 21, 2019, EPA Region 5 and EPA Office of Water attended a meeting in Reynoldsburg, Ohio, on the Ohio CAFO programs transfer with representatives from the Ohio Department of Agriculture (ODA), Ohio Attorney General (OAG), and Ohio Environmental Protection Agency (Ohio EPA). Topics discussed included: remaining areas of clarification needed for EPA approval, identification of a multi-agency team to resolve remaining issues, timeline, and next steps.

   There were other interactions that occurred with the states prior to these larger meetings that included phone calls and smaller meetings where we discussed related topics. For example, EPA Region 5 had face-to-face meetings with WDNR and WDATCP in Chicago on June 22 and September 5, 2018 and a conference call on October 4, 2018. For the Ohio CAFO transfer, EPA Region 5 had a call with ODA, Ohio EPA and Ohio DNR on November 26, 2018. The desired outcome is better environmental protection through better and more thorough coordination and communication with our state regulatory partners.

Question: Did former EPA Administrator Scott Pruitt similarly encourage Regional Administrators to work more cooperatively with states?

Answer: Working cooperatively with states was a high priority for the former Administrator as demonstrated by the inclusion of a specific goal in the FY 2018 – FY 2022 Agency Strategic Plan, Goal 2 – Cooperative Federalism, and the establishment of a Senior Advisor position in the Administrator's Office dedicated to State and Regional affairs.

Question: Have any other regional administrators undertaken activities similar to the Ms. Stepp's 'action days,' namely, as you described, having face-to-face meetings to discuss issues or share concerns with permits, regulations, or oversight, in lieu of sending letters, as has been standard practice in the past? If so, please provide a list of all similar such meetings, including date(s), who was present at those meetings, and brief descriptions regarding the topics that were covered.

EPA has posted on its website two "Messages to EPA Employees" related to transparency, issued while you were Acting Administrator. The first one was released shortly after you were named Acting Administrator, and second one was a follow-up memo from November where you reminded agency staff of their obligations under the Federal Records Act. I saw these memos as a welcome departure from the practices of your predecessor, who many have accused of trying to subvert the FOIA process by minimizing the generation of written records.

Answer: Regional Administrators hold frequent, scheduled and as needed, formal and informal, face-to-face meetings, calls, and other personal interactions with state and local officials at various levels. It is an integral part of an EPA regional office's work. These interactions augment interactions regions have with the states through written correspondence.

Examples include Regional Administrators hosting senior leadership meetings with state commissioners to discuss issues of mutual interest and concern and to ensure a successful partnership. Regions hold these meetings monthly and quarterly to discuss a wide range of issues, including shared priorities, ways to strengthen relationships, regulatory/enforcement/policy concerns, etc. Further, Regional Administrators regularly meet, have phone conversations, and correspond with state commissioners and state program counterparts to discuss on-going regulatory actions, permitting, enforcement, Superfund sites, emergency response, grants, and oversight. These frequent interactions ensure that EPA and its state partners are working in close coordination and collaboration to protect public health and the environment.

Question: Has Ms. Stepp or any other regional administrator carried out any 'action days' or similar activities since you issued your November memo?

Answer: Regional Administrators hold frequent, scheduled and as needed, formal and informal, face-to-face meetings, calls, and other personal interactions with state and local officials at various levels. It is an integral part of an EPA regional office's work. These interactions augment interactions regions have with the states through written correspondence.

Examples include Regional Administrators hosting senior leadership meetings with state commissioners to discuss issues of mutual interest and concern and to ensure a successful partnership. Regions hold these meetings monthly and quarterly to discuss a wide range of issues, including shared priorities, ways to strengthen relationships, regulatory/enforcement/policy concerns, etc. Further, Regional Administrators regularly meet, have phone conversations, and correspond with state commissioners and state program counterparts to discuss on-going regulatory actions, permitting, enforcement, Superfund sites, emergency response, grants, and

oversight. These frequent interactions ensure that EPA and its state partners are working in close coordination and collaboration to protect public health and the environment.

Questions Submitted for the Record by Ranking Member Joyce

GREAT LAKES RESTORATION INTIATIVE (GLRI) – FISCAL YEAR 2020 REQUEST

This Subcommittee – and the Chair and I in particular – recognize the important role that the Great Lakes Restoration Initiative (GLRI) plays in our ability to protect and preserve the Great Lakes ecosystem and the 24 million Americans who depend on it. We have seen firsthand that providing resources to restore the health of this ecosystem directly impacts the health of our economy.

Since 2010, a total of 70 Beneficial Use Impairments (BUIs), at 24 Areas of Concern in the Great Lakes States, have been removed. This is seven times the total number of BUIs removed in the preceding 22 years, including two BUIs in fiscal year 2018 in Northeast Ohio, at the Cuyahoga and Ashtabula rivers.

It is because of continued success stories like this why, year after year, this Subcommittee has consistently – on a bipartisan basis – rejected proposed cuts to the GLRI from both current and previous administrations.

Question: In light of the President's comments in Michigan – what is the Administration's desired fiscal year 2020 request for GLRI?

Answer: Consistent with the President's and Administrator's remarks and the proposed FY 2020 Budget, the EPA supports full funding at $300 million for the Great Lakes Restoration program.

Question: Are we likely to see a budget addendum from the Administration noting this change and indicating where the additional $270 million needed to fully fund the GLRI would come from?

Answer: The Office of Management and Budget has submitted a budget addendum to the President's Budget requesting a total of $300 million for GLRI..

GREAT LAKES RESTORATION INTIATIVE (GLRI) – HARMFUL ALGAL BLOOMS

Since 2015, as a result of Great Lakes Restoration Initiative (GLRI) funded projects, EPA and its partners have worked collaboratively to prevent over one million pounds of phosphorous from entering the Great Lakes.

Excessive amounts of phosphorus threaten the Great Lakes ecosystem and priority watersheds by contributing to harmful algal blooms. Harmful algal blooms contaminate surface

and drinking water supplies, cause human and animal health effects, and can lead to beach closures that result in lost recreational opportunities.

Question: Given EPA and its partners use GLRI funds to prevent over 300,000 pounds of phosphorous from entering the Great Lakes each year, can you speak to the importance of robust funding in fiscal year 2020 in order to limit phosphorous levels and bolster our ability to prevent harmful algal blooms?

Answer: The EPA is committed to working cooperatively with our state and federal partners to address the problems of excess phosphorus and harmful algal blooms.

At the requested Great Lakes Restoration Initiative (GLRI) funding level ($300 million), the EPA and its partners would continue to use GLRI funding to implement on-the-ground projects to reduce nutrient runoff from agricultural watersheds and to accelerate implementation of green infrastructure in order to limit phosphorous levels and bolster our ability to prevent harmful algal blooms.

Question: How important is controlling phosphorous levels for improving the water quality of the Great Lakes and for supporting the $7 billion Great Lakes fishing industry?

Answer: Phosphorus control is critical to prevent harmful algal blooms, which pose significant threats to the Great Lakes ecosystem and human health. The presence of excessive algae also negatively impacts economic and recreational opportunities, including fishing, on the Great Lakes.

Question: If GLRI is fully funded in fiscal year 2020, how much does the Agency plan to spend on harmful algal bloom work?

Answer: Should the GLRI be funded at $300 million, we would expect to provide about $35 million for this important work.

GREAT LAKES RESTORATION INTIATIVE (GLRI) – IMPACT ON FEDERAL PARTNERS

Although funding for the Great Lakes Restoration Initiative (GLRI) resides within EPA's budget, the Agency is required to use these funds to coordinate with several other federal agencies – like the Department of Commerce, Department of the Interior, and others – to carry out Great Lakes restoration work.

Question: In formulating the fiscal year 2020 request – and prior year requests – for GLRI, does the Agency consult with its federal partners to determine how a proposed reduction might impact their GLRI work?

Answer: The EPA coordinates and consults with its federal partners throughout the budget process, requesting input on specific issues and impacts as needed.

Question: Can you speak to the importance of federal collaboration in restoring the Great Lakes ecosystem and provide some examples of GLRI projects you are currently carrying out with other federal agencies?

Answer: Federal collaboration is vital to Great Lakes restoration and helps to avoid duplicating efforts. By combining authorities and working together, we are able to accelerate restoration. Examples of collaborative work include the following activities:

1. With support from GLRI, the multi-agency Asian Carp Regional Coordinating Committee (ACRCC), has worked diligently to prevent self-sustaining populations of Black, Silver, and Bighead Carp, species that could do irreparable harm to the region's economy and ecology if introduced, from entering the Great Lakes. Early research has found evidence of Grass Carp spawning in some tributaries of Lake Erie. At the request of the State of Ohio, the ACRCC is funding actions to detect and remove Grass Carp when found in these tributaries. The United States Fish and Wildlife Service, United States Geological Survey, the Michigan Department of Natural Resources (DNR) and Ohio DNR, Ontario Ministry of Natural Resources and Forests, the Canadian Department of Fisheries and Oceans, and other partners continue to assess Grass Carp populations in Lake Erie and other locations in the Great Lakes to better understand their status.
2. The EPA and National Oceanic and Atmospheric Administration (NOAA) are collaborating in a regional partnership with the Great Lakes Commission and local groups to restore beneficial use impairments in the Muskegon Lake, Michigan (MI) Area of Concern. In 2019, NOAA will complete construction of the Lower Muskegon River project in MI which will restore 53 acres of emergent wetlands and over half-a-mile of riverine shoreline using a $3.4M investment from GLRI. Since 2013, NOAA and the EPA have also completed three other GLRI projects that restored over 100 acres of wetland and over 1.5 miles of streambank and shoreline in this Area of Concern.
3. The United States Geological Survey is leading a GLRI-funded effort with Natural Resources Conservation Service and other partners to conduct edge-of-field monitoring on 22 farm sites in the Maumee River, Fox River, Saginaw River and Genesee River watersheds. These watersheds were selected because of the high density of agricultural land use and their ecosystem impairments. Two new study sites have been added in order to assess new and innovative practices that are not currently in common usage across the basin.
4. The United States Army Corps of Engineers is leading a GLRI-funded collaborative demonstration project in the Maumee River basin to design, build, and monitor treatment wetlands to optimize phosphorus removal.

GREAT LAKES RESTORATION INTIATIVE (GLRI) – IMPACT ON STATES, TRIBES AND LOCAL COMMUNTIES

According to the budget request as it currently stands, in fiscal year 2020, Great Lakes Restoration Initiative (GLRI) funding will be used to support State and Tribal monitoring work in the Great Lakes. And, this monitoring work will then be used to "measure and assess the overall results of activities that affect the environmental condition of the Great Lakes."

The reason that the GLRI has been so successful in restoring the Great Lakes basin is because funds are used for on-the-ground, coordinated public-private restoration activities, not simply for monitoring the condition of the Great Lakes.

Question: What portion of the GLRI request typically supports on-the-ground restoration versus monitoring efforts?

Answer: Under historical GLRI funding levels, about 15% of the GLRI budget is for monitoring efforts.

Question: I am a proponent of cooperative federalism, but given the environmental and economic significance of the Great Lakes, is it fair to expect the States, Tribes, and local communities to shoulder the burden of caring for the Great Lakes?

Answer: Protecting the Great Lakes is an important and shared responsibility across all levels of government. The EPA is committed to working with Congress, as well as our federal and state partners, to protect human health, support economic growth, and improve environmental conditions for Americans that live and work in the Great Lakes region.

Question: Do you expect to see setbacks in Great Lakes restoration work should the current $30 million budget request be enacted?

Answer: The FY 2020 Budget proposes $300 million for the Great Lakes Restoration Initiative. EPA is committed to working with Congress, as well as our federal and state partners, to protect human health, support economic growth, and improve environmental conditions for Americans that live and work in the Great Lakes region.

IMPROVEMENTS IN AIR QUALITY – NE OHIO

In 2017, approximately 111 million people in the United States lived in counties with pollution levels that did not meet standards for at least one criteria air pollutant, including counties in my district in Northeast Ohio.

One of EPA's proposed fiscal year 2020 objectives is to work with States and Tribes to ensure more Americans are living and working in areas that meet high air quality standards and to reduce the number of nonattainment areas.

Question: How will EPA's 2020 budget proposal improve ongoing partnerships with States, Tribes, and local communities to achieve improvements in air quality and reduce public health risks?

Answer: The FY 2020 President's Budget continues to provide the necessary resources for the EPA to address its core statutory responsibilities in cooperation with its state, tribal and local partners. The Agency, in close collaboration with states and tribes, will continue to work to reduce the number of areas that are not in attainment with the National Ambient Air Quality Standards (NAAQS). The EPA also is focusing on ways to improve the efficiency and effectiveness of the State Implementation Plan (SIP) and Tribal Implementation Plan (TIP) review processes with a goal of maximizing timely processing of state- and tribal-requested implementation plan actions. The State Plan Electronic Collaboration System (SPeCs) and the Electronic Permitting System (EPS), both currently under development, also are expected to improve the EPA's interaction with state, local, and tribal air agencies and improve data availability and transparency in FY 2020 and beyond. These activities, among others, will help to deliver air quality improvements and to reduce public health risks to people across the United States.

Question: How will the significant proposed reductions to the State and Local Air Quality Management and Tribal Air Quality Management categorical grants impact this work?

Answer: The EPA will work collaboratively with the states and tribes through the work planning process to target funds to core air requirements, while providing flexibility to address state and tribal priorities. Additionally, through the National Environmental Performance Partnership System (NEPPS), the EPA continues to make states aware that the use of Performance Partnership Agreements (PPAs) and Performance Partnership Grants (PPGs) can allow states and tribes funding flexibility to combine categorical program grants to address environmental priorities and, in some cases, to reduce administrative burden.

BEACH GRANTS

EPA's Beaches Environmental Assessment and Coastal Health Act grants – commonly known as BEACH grants – help States, Tribes, and local governments monitor water quality at coastal and Great Lakes beaches and notify the public when the water is unsafe for recreational activities.

This work is especially important because each year Americans take more than 900 million trips to coastal areas, including trips to Lake Erie beaches in my district. Exposure to polluted waters that contain bacteria and/or viruses can pose serious risks to human health.

Question: Can you explain the Administration's rationale for terminating the BEACH grants in fiscal year 2020? Especially when we saw an uptick last year in coastal water pollutants like red tide and harmful algal blooms?

Answer: The proposed program elimination is part of the Administration's overall goal to focus on funding core environmental programs with a national scope. In June 2019, the EPA finalized our recommendation for what a safe level of cyanotoxins would be for recreational waters and states and tribes may account for these recommended concentrations in their NPDES discharge permits to help protect swimmers.

Question: If EPA takes a step back from its current role and provides no federal assistance, as proposed in fiscal year 2020, do you believe that grantees – like the Ohio Department of Health – will be able to maintain and improve their water monitoring and notification programs to keep Americans safe?

Answer: State-run beach monitoring programs are mature. Human health benefits can be maintained through implementation at the local level.

"PFAS ACTION PLAN" – ONGOING WORK AND RESOURCES

On February 14, 2019, EPA released its "PFAS Action Plan" outlining short-term and long-term steps the Agency plans to take to address PFAS and protect the public health.

Question: Can you provide the Committee with an update on the work EPA is doing to move forward with the regulatory process to potentially set a Maximum Contaminant Level for two of the more common and prevalent PFAS?

Answer: The EPA is committed to following the Maximum Contaminant Level rulemaking process as established by the Safe Drinking Water Act. As the next step in this process, a regulatory determination which includes the PFOA and PFOS chemicals, is currently under Executive Order 12866 review. Once finalized, EPA will then work through the rulemaking process as expeditiously as possible.

Question: Does the fiscal year 2020 budget request include the necessary funding for EPA to carry out PFAS-related research and regulatory work?

Answer: The EPA's PFAS Action Plan lays out a multi-year approach to researching and managing PFAS consistent with expected budget allocations. The EPA continues to highlight this as a priority area for research and regulatory work.

HEALTHY SCHOOLS GRANT PROGRAM

The fiscal year 2020 budget proposal includes $50 million to establish a new Healthy Schools Grant Program to protect children and teachers from environmental hazards where they live, play, and work each day. Much like any other parent, I want to ensure that our nation's children are going to school in a clean, safe, and healthy environment.

As I understand it, through the Healthy Schools Grant Program, EPA will work with States, Tribes, and local communities to address potential gaps in school environmental health.

Question: Can you identify the toxics, pollutants, and other "gaps" in school environmental health that EPA is not currently addressing?

Answer: Nearly 50 million children and 6 million teachers and other adults spend their days in over 100,000 K-12 school facilities every day. Many of these buildings are old, in poor condition, and may contain environmental conditions that pose increased risks to the health of children and staff. Many of the affected school districts do not have the capacity or resources to identify potential environmental hazards in their schools. Building on current efforts aimed at protecting children's health, the EPA's proposed grant program will provide a new source of funding to assist schools that most need it in identifying and, in some cases, addressing environmental conditions in schools. The gap the EPA is trying to address through this grant program is the lack of knowledge regarding the environmental conditions in many schools. The EPA will work in collaboration with schools, state, local and tribal governments, NGOs, and other partners to help schools address the identified environmental health hazards.

Question: How will EPA ensure that this program does not duplicate efforts of other important grant programs like the Lead Testing in Schools grant program and the Radon categorical grants?

Answer: If environmental hazards are identified, school administrators would be connected with EPA staff who can explain EPA grant opportunities under the Healthy Schools Grant Program or other applicable grant programs as well as available EPA tools (e.g., indoor air quality tool) to address environmental hazards. The EPA anticipates significant collaboration with state, tribal, and local governments, and community stakeholder groups to leverage available resources to further address hazards identified through the assessment process.

Question: If the Healthy Schools Grant Program is funded in fiscal year 2020, how do you plan to distribute funding to states and tribes?

Answer: The Agency is committed to working with Congress as well as a variety of other interested stakeholders—including state and tribes—to develop a competitive methodology to

select eligible grantees and distribute the funds. The EPA is dedicated to protecting children where they live, learn, and play. The Agency understands that to be protective of children's health, as highlighted by the President's Task Force on Environmental Health Risks and Safety Risks to Children, it is essential that children's environments be safe from environmental hazards. Eligible recipients would include state and local governments, federally recognized tribal governments, and non-profit organizations. Selected projects would focus on creating clean, green, and healthy school environments and will be expected to incorporate EPA guidance, such as State School Environment Health Guidelines, Voluntary Guidelines for Selecting Safe School Location and their design, construction, and renovation, and 3Ts for Reducing Lead in Drinking Water in Schools (Training, Testing, and Taking Action).

Question: Is the Agency committed to working with Congress to develop a methodology to distribute the grants?

Answer: The EPA is committed to working with Congress as well as a variety of other interested stakeholders—including state and tribes—to develop a competitive methodology to select eligible grantees and distribute the funds.

SUPERFUND PROGRAM

In my home state of Ohio, we currently have nearly 40 sites on the Superfund National Priority List. For this reason, I, like many of my colleagues, have remained very supportive of EPA's Superfund program over the years to ensure that the Agency has the necessary resources to accelerate the pace of cleanups to return these sites to productive use.

Last January, EPA released its Superfund Redevelopment Focus List outlining the sites across the country with the greatest expected redevelopment and commercial potential.

Question: How did EPA go about determining the sites to be included on this list? And, given that none of Ohio's sites were included on the list, how is EPA ensuring that all sites – not just those on the list – are being adequately addressed?

Over the last two years, this Committee has made significant investments in the Superfund Remedial program.

Answer: The Superfund Redevelopment Initiative promotes opportunities at all sites where redevelopment is feasible. The EPA believes that most sites have some form of redevelopment potential, either in the near term or in the more distant future. The Redevelopment Focus List was not intended to be a complete list of Superfund sites with redevelopment potential. The list was designed to accelerate site reuse following the July 2017 Superfund Task Force recommendations. The EPA is shifting focus to the lessons learned, to better promote reuse. The EPA actively encourages any site owner interested in finding ways to safely promote their property through the

Superfund Redevelopment Initiative, see: https://www.epa.gov/superfund-redevelopment-initiative/redevelopment-opportunities.

To create the Redevelopment Focus List, the EPA took the following steps:

1) Initially identified sites where there has been a strong interest in reuse, or there appeared to be good reuse potential. This formed the initial draft list.

2) Narrowed the initial draft list based on the following criteria:
   a. Previous outside interest;
   b. Transportation access;
   c. Land values; and
   d. Other critical development drivers.

3) Vetted the revised list of sites with a range of Superfund experts.

4) Contacted property owners, as appropriate, to let them know that their site was being considered for the Superfund Task Force Redevelopment List.

5) Requested additional sites from states that they would like the EPA to consider for redevelopment potential.

6) Published the list of sites, along with fact sheets that provided information about reuse potential.

Question: Can you explain how those investments have helped EPA accelerate cleanup efforts, move sites off the National Priority List, and spur economic development?

Answer: Recent investments in the Superfund Remedial Program, including infrastructure resources, have allowed the program to start and complete a number of projects. In FY 2018, the EPA started (or oversaw responsible parties' work to start) 73 remedial construction projects and completed 87 remedial construction projects. The EPA continued to conduct construction or provide oversight at 479 remedial construction projects started in prior fiscal years.

"Construction completion" is a sitewide measure that documents the completion of all physical construction of cleanup actions, including actions to address all immediate threats and to bring all long-term threats under control. In FY 2018, all physical construction of the cleanup remedy was completed at 12 sites. The EPA may delete a site from the National Priorities List (NPL) if it determines that no further response is required to protect human health or the environment. In FY 2018, the Agency deleted all or part of 22 sites from the NPL, the largest number of deletions in one year since FY 2005 and a significant increase over the past few years.

The EPA continues to spur economic redevelopment through the Superfund Redevelopment Initiative. Since July 2017, the EPA:

1) Continued site-specific support geared toward communities in reuse-related discussions. These efforts play a key role in selecting and implementing remedies that support reuse, engaging communities in reuse discussions, laying the groundwork for successful reuse in the future, and working with stakeholders to understand how to safely reuse cleaned up sites. The EPA developed five technical reuse reports that highlight reuse planning processes and outcomes at sites that have received technical assistance.

2) Responded to over 200 redevelopment-related prospective purchaser inquiries and has issued ready for reuse fact sheets for over 60 sites to spur redevelopment with the goal to create more.

3) The EPA created a mapping tool that provides map-based search capabilities and depicts site-specific information related to the 31 Redevelopment Focus List sites and is in the process of developing a geographic information system-based mapping tool to encourage redevelopment at all sites around the country.

Question: How has the Superfund Task Force improved and standardized cleanup guidance and protocols across the regions?

Answer: The EPA completed initial implementation of the 42 Superfund Task Force recommendations at the end of July 2019. The Task Force and the renewed attention to the Superfund program is producing visible and measurable results that have improved cleanup procedures throughout the cleanup process. For instance, after a thorough review of Agency procedures, the EPA developed best management practices for addressing human exposure at sites nationally, launched an interactive dashboard to make human exposure status information more accessible to communities, and identified opportunities to decrease timelines to effectuate control at additional sites. In FY 2018, the Agency designated an additional net total of 32 sites as having human exposure to contamination under control, the largest number in one year since FY 2006. The EPA also increased the focus on timeliness of NPL site deletions. After a review of current NPL deletion policies and practices, the EPA identified procedural and technical issues that may affect deletion or partial deletion of an NPL site. In FY 2018, the EPA deleted all or part of 22 sites from the NPL, the largest number of deletions in one year since FY 2005, and a significant increase over the past few years.

To promote national consistency in remedy decision making, the EPA developed a process for the EPA Administrator to review remedy decisions equal to or greater than $50 million. Since October 2017, the prior or current Administrator has participated in remedy decisions for 12 NPL sites (five involving Administrator Wheeler). The EPA also is resolving issues at Superfund sites that benefit from the Administrator's immediate attention or action by placing them on the Administrator's Emphasis List (AEL). Since the EPA released the first AEL in December 2017, 13 sites have been removed from the list because short-term milestones were achieved. The EPA

is continuing to implement the AEL, with the fourth update in April 2019. There are currently 15 Superfund sites on the AEL.

Several Task Force efforts focused on improving cleanup practices through consistent technical support, technical guidance, and efficient and cost-effective contracting. The EPA issued three technical guides to assist environmental professionals in scoping, data management, and strategic sampling activities at hazardous waste sites to help strengthen Superfund site characterization activities in order to improve site remedy decisions and remedy performance. The EPA also issued a regional memorandum to expand use of adaptive management at Superfund sites and began implementing adaptive management at six pilot sites. To promote third-party optimization throughout the remediation process, the EPA implemented 37 ongoing or new optimization projects in 2017 and 2018 and is compiling lessons learned and implementation status of over 300 recent optimization recommendations. The Agency completed procuring remediation contracts, called the Remedial Acquisition Framework contracts. These new contracts expand the pool of vendors available for Superfund remedial program activities, increase competitiveness in the acquisition process, and include fixed price tasking options to increase opportunities for cost efficiencies.

Lastly, the EPA has expanded outreach efforts to ensure the visibility of potential reuse sites. In January 2018, the Agency released the Redevelopment Focus List of 31 NPL sites with greatest reuse potential. This list was used as a plan to advance site reuse for the year following the Task Force.

Since the Redevelopment Focus List was established, the EPA has issued fact sheets and other information for Focus List sites as well as 32 other sites ready for reuse; created the Redevelopment Story Map, a mapping tool on the EPA website that provides map-based search capabilities and depicts site-specific information related to the 31 Redevelopment Focus List sites; provided technical assistance to over 20 communities in all 10 Regions; conducted training and developed materials on how to engage with industries, businesses, and developers on redevelopment of sites within the EPA's cleanup programs; awarded additional site reuse awards and developed an internal guide on ways to celebrate reuse; and assembled a team of EPA redevelopment experts to help advise businesses, developers, and other stakeholders. Due to this outreach, EPA has responded to over 200 redevelopment-related prospective purchaser inquiries since July 2017. As of the end of FY 2018, 529 Superfund sites have been returned to productive use.

More information on Task Force accomplishments in Year 1 are available in the 2018 Update Report (https://semspub.epa.gov/work/HQ/197209.pdf) and the latest quarterly updates are in the SFTF quarterly Report: First Quarter FY 2019 (https://semspub.epa.gov/work/HQ/100001942.pdf).

EPA WORK TO REDUCE NUTRIENT POLLUTION

In February, EPA signed a Memorandum of Understanding (MOU) with the Water Research Foundation to accelerate progress on reducing excess nutrients in our nation's waterbodies.

Question: Given that agriculture is Ohio's number one industry, can you explain how this MOU will allow EPA and the Water Research Foundation to work with farmers to develop affordable programs, tools, and technologies that support watershed and market-based approaches to nutrient management?

Answer: The purpose of the MOU is to build capacity for and awareness of programs and tools that support watershed and market-based approaches to nutrient management in the U.S. with a focus on the role that agricultural stakeholders can play in reducing nutrient impacts by employing new technologies and practices.

This MOU establishes the following objectives:

1. Improve the state of knowledge of nutrient recovery technology systems, their performance in agricultural settings, cost considerations, and associated water quality and other environmental benefits.
2. Encourage problem solving through communities of practice that include diverse stakeholders with expertise and interest in agricultural systems, watershed management, and market-based approaches.
3. Empower agricultural producers who are making decisions about nutrient management technologies and practices.
4. Support opportunities for on-farm technology demonstrations and installations.
5. Identify and document innovative watershed-based approaches for nutrient management.

COAL COMBUSTION RESIDUALS PERMIT PROGRAMS

Over the last two fiscal years, Congress has provided $14 million for EPA to develop and implement a federal permit program for the regulation of coal combustion residuals (CCR).

Question: Please provide an update on these efforts and explain how EPA has spent these funds—and will continue to spend funds—to fully develop a CCR permit program.

Answer: The EPA has been actively working to develop a federal coal combustion residuals (CCR) permit program. One of the first steps in program development is the establishment of the regulations under which such a program would operate. The EPA has made

significant progress and plans to propose these regulations later this year. In addition, the EPA has been working closely with our state partners and plans to conduct site visits later this year, train regional staff, and continue to provide technical advice and guidance as states develop their permit programs.

Question: Are there additional resources that EPA needs that will be beneficial to the agency to help support States in developing their own CCR programs?

Answer: The EPA continues to support states as they develop CCR programs, providing states with technical assistance as they develop their regulations. The EPA is positioned to sustain support, while continuing its federal responsibilities.

Questions Submitted for the Record by Representative Pingree

EPA WOOD HEATER STANDARDS

Question: Can you provide for the record information and status of the EPA's New Source Performance Standards for New Residential Wood Heaters given that there is a May 2020 effective date for Step 2 of this rule?

Answer: The proposed amendments to the New Source Performance Standards (NSPS) for Residential Wood Heaters would allow retailers additional time to sell the existing inventory of hydronic heaters and forced-air furnaces. In addition, the EPA issued an Advance Notice of Proposed Rulemaking (ANPR) to seek comment on several aspects of the 2015 NSPS, including the feasibility of the upcoming May 2020 compliance date for manufacturers of hydronic heaters and forced-air furnaces to meet a second, more stringent emissions limit, known as the Step 2 limit.

The comment period closed in February 2019. The EPA received 366 comments in response to the proposed amendments from manufacturers, retailers/distributors, pellet fuel industry, states, private citizens, and health and environmental organizations and 39 comments in response to the ANPRM. The EPA is reviewing the public comments in order to provide information about next steps.

EPA STATE AIR PETITIONS

Administrator Wheeler, in your testimony, you stated during the hearing that the reason EPA rejected Delaware's and Maryland's air petitions was because EPA believes that almost all non-attainment areas in the country "will reach attainment by the early 2020s." However, this analysis assumes that certain existing rules and policies that aim to improve air quality would be in place. Meanwhile, the EPA is gutting those same rules and regulations. These rules have been in place for many years, and, in the case of "the Once In Always In" policy, since the 1990s.

Question: Did EPA's analysis include the projected effects from the change in the "Once in Always In" policy, rollback of clean car standards and other changes the Administration is proposing?

Answer: The EPA's denial of the Delaware and Maryland petitions in 2018 was consistent with our approach to assessing and acting upon the petitioner-provided analyses and/or developing our own independent analysis of Section 126(b) petitions using our longstanding analytical framework for interstate transport. When the EPA applied this framework for each of the six ozone-related petitions we acted on in 2018, including four petitions from Delaware and one petition from Maryland, the Agency did not find a basis to conclude that the sources named in the petitions emit or would emit in violation of the prohibition in the Clean Air Act's good neighbor

provision (Section 110(a)(2)(D)(i)(I)). In drawing this conclusion, the EPA found that the petitions did not provide a sufficient technical basis for the requested finding. The EPA also looked at whether there are current or projected future nonattainment or maintenance problems and found that Delaware is expected to attain and maintain the 2015 ozone NAAQS in the future. Moreover, the EPA considered the emission reductions already being achieved at these sources through implementation of the Cross-State Air Pollution Rule (CSAPR) Update. The EPA's independent analysis identified no additional cost-effective measures at any of the named sources. Maryland, Delaware, and environmental groups have filed petitions for review in the D.C. Circuit regarding the EPA's recent denials of Delaware's and Maryland's CAA section 126(b) petitions.

Question: How can we expect states to reach attainment if you are simultaneously gutting the rules that would make this possible (such as MATS, "Once In Always In," NSR Review, and Clean Car Standards) in the first place?

Answer: The U.S. has experienced a dramatic reduction in ground-level ozone, its precursors, and interstate transport. The EPA projects in nearly all areas of the country will meet the 2008 and 2015 ozone standard by the early 2020s. Between 2007 and 2017, emissions of NOx, the key contributor to ground-level ozone, have dropped in the U.S. by more than 40 percent. For power plants that the EPA and states regulate to address cross-border ozone contributions, NOx emissions dropped by 77,000 tons (21 percent) just between the 2016 and 2017 ozone seasons.

The EPA has not proposed to rescind or weaken the MATS rule that limits emissions of mercury and other hazardous air pollutants from coal- and oil-fired power plants. The EPA is not proposing to remove electric generating units from the list of source categories that are subject to regulation under Section 112 (i.e., a so-called "delisting" action under Section 112(c)(9), a necessary predicate for repealing standards established under Section 112(d)), nor does the EPA believe that the criteria for delisting under Section 112(c)(9) could be met by electric generating units. The proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, would have no effect on the mercury emissions limits required under the existing MATS rule.

In a 2007 proposed rule, the EPA projected that rescinding the "once in, always in" policy would result in an overall reduction in emissions. Further, a rulemaking currently underway to implement the plain language reading of the CAA that is discussed in the EPA's January 2018 memorandum, which rescinded the "once in, always in" policy, will provide further information regarding the expected emission consequences of this action.

The EPA does not expect the improvements it has been making to the New Source Review program to have any adverse effects on states' ability to meet attainment status. Where the EPA is following up on its NSR guidance with rulemaking, appropriate analyses addressing this matter will be undertaken.

Questions Submitted for the Record by Representative Kilmer

FEDERAL REQUIREMENTS TO RECOVER PUGET SOUND

Question: For Fiscal Years 2018 and 2019, how much money did the EPA spend (or is planning to spend) on federally mandated actions within the Puget Sound watershed? In your response, please provide a list of all federal actions taken, indicate which account(s) those funds came from, and which statutory requirement the action fulfilled.

Answer: The EPA's combined National Estuary Program and Geographic Program funding for Puget Sound for FY18 and FY19 totals $56,926,000. NEP requires a minimum of a 1 to 1 match, and in Puget Sound the EPA leverages over $12 for every $1 of NEP/Geo funding provided. The EPA allocates these resources under a 5-year funding model that was set up in FY15 to best support the Puget Sound Action Agenda, which is the Comprehensive Conservation Management Plan for Puget Sound, as required by the Clean Water Act Section 320. The EPA funds "lead organizations" who in turn fund entities that then select projects and activities prioritized under the Action Agenda. Table 1 summarizes the EPA's funding for FY18 and FY19. Table 2 provides a list of all EPA programs identified as being supportive of Puget Sound recovery in the July 2018 report by the Government Accountability Office, *Puget Sound Restoration*. Funding levels are not available for these programs because they are often used to serve multiple goals for recovery in the Puget Sound watershed.

Question: Would the EPA be vulnerable to legal action if these activities were suspended in FY 2020 due to insufficient federal funding?

Answer: The EPA takes all necessary steps to ensure that it is fulfilling its statutory duties.

Table 1: SUMMARY OF PUGET SOUND NEP & GEOGRAPHIC FUNDING FY18/19

Funding Area	FY18 ($27,863,000 GEO & $600,000 NEP)	FY19* ($27,863,000 GEO & $600,000 NEP)	Comments
Strategic Initiative Lead and Tribal Initiative Lead Funding for Action Agenda (CCMP) implementation	$17,300,000	$17,300,000	Strategic Initiative Lead website (FFY2015-2017 projects): https://pugetsoundestuary.wa.gov/
Habitat Strategic Implementation	*$4,900,000*	*$4,900,000*	The Washington State Departments of Fish and Wildlife, and Natural Resources receive funding to implement the Action Agenda, primarily

Lead (WDFW/WDNR)			addressing nearshore habitat restoration and protection through subawards to entities pursuing near-term actions to improve habitats. FFY2018 Habitat Projects: https://pspwa.app.box.com/s/isgvgo26v34qffr5227qhpovcneue6cc
Shellfish Strategic Implementation Lead (WDOH)	*$4,200,000*	*$4,200,000*	The Washington State Department of Health receives funding to implement the Action Agenda, primarily addressing pathogen reduction strategies and efforts to maintain shellfish health. Includes subawards to Departments of Agriculture and Ecology, Conservations Districts and local government/health districts. FFY2018 Shellfish Projects: https://pspwa.app.box.com/s/r0dtojufy0ws24i74huzb12aawg3ggkl
Stormwater Strategic Implementation Lead (WDOE)	*$4,200,000*	*$4,200,000*	The Washington State Department of Ecology receives funding to implement the Action Agenda, primarily addressing broad-scale watershed management needs, reduction of toxics and nutrients in the environment, and better management of stormwater inputs to Puget Sound. Includes subawards to Department of Commerce, Washington State University, Conservation Districts and local governments. FFY2018 Stormwater Projects: https://pspwa.app.box.com/s/dc95ebh2j2tc9gbw4u839bsstiu7q0fa
Tribal Implementation Lead (NWIFC)	*$4,000,000*	*$4,000,000*	The Northwest Indian Fisheries Commission works with 18 Puget Sound region federally recognized Indian tribes to support fisheries and shellfish habitat restoration and protection needs in their communities. A large proportion of these funds are administered as subawards to tribes for project work and activities to implement the Action Agenda and tribal priorities.
NEP Base Grant w/Supplemental Funding (Puget Sound Partnership)	$3,571,000	$3,571,000	The Puget Sound Partnership is the Washington State entity responsible for the creation and implementation of the federally required Comprehensive Coordinated Management Plan (CCMP) for all nationally designated estuaries under the Clean Water Act. $2,971,000 is supplemental to the NEP base grant of $600k. Funds are used for – Action Agenda (CCMP) development and oversight, Management Conference support, funding for Local Integrating Organizations and Northwest

			Straights Commission/Marine Resource Committees and other NEP management activities.
22 Puget Sound Tribal Base Program Cooperative Agreements	$3,700,000	$3,700,000	Supports planning and projects for each of the Puget Sound tribes and consortia, including participation in the Puget Sound Management Conference and the Tribal Management Conference.
Puget Sound Action Agenda - Implementation Strategies, Science, Monitoring and Adaptive Management Analysis and Activities (PSP/PSI)	$1,815,857	$1,800,000	Cooperative agreement with the Puget Sound Partnership and University of Washington Puget Sound Institute to catalyze rigorous, transparent analysis, synthesis, discussion and dissemination of science in support of the restoration and protection of the Puget Sound ecosystem. Provides scientific expertise to support development and use of implementation strategies, assessment and synthesis of research, monitoring and modeling data for decision making and long-term planning and trends, support for the Science Panel and Puget Sound Environmental Monitoring Program, and adaptive management support for programs and decision makers. https://www.pugetsoundinstitute.org/ https://www.psp.wa.gov/implementation-strategies.php
Science and Monitoring - Interagency Agreements	$946,935	$975,000	EPA enters into cooperative interagency agreements with other federal natural resources management organizations to support Puget Sound protection and restoration goals under the Clean Water Act-National Estuary Program. In FY18/19 these include agreements with USGS PS CoSMoS modeling; DOE/PNNL Salish Sea Modeling; USFWS/NOAA/Washington State University – Stormwater Research; USFS - Fish Passage/Legacy Roads planning support.
EPA Intramural	$1,266,208	$1,254,000	EPA operations and staffing resource needs
TOTAL	$28,463,000	$28,463,000	

*Grants, cooperative agreements and federal interagency agreements for 2019 are in the process of award, and we anticipate funding at these levels by the end of the 2019 federal fiscal year.

Table 2: List of EPA Programs relevant for Puget Sound recovery taken from *GAO Puget Sound Restoration – Additional Actions Could Improve Assessments of Progress (GAO-18-453 / July 2018) Appendix II: Catalog of Efforts Identified by Federal Entities that Supported Restoration Activities in Puget Sound* (page 63)

Name of effort	Description	Habitat restoration	Habitat protection	Water quality	Monitoring	Research	Education/ outreach
Environmental Protection Agency (EPA)							
Clean Water Act Section 106	EPA provides grants to states and tribes to establish and implement ongoing water pollution control programs.	✓	✓	✓	✓	✓	✓
Clean Water Act Section 303(d)	EPA assists states and tribes in submitting lists of impaired waters and establishing the maximum amount of a pollutant allowed in a waterbody.	-	-	✓	✓	✓	✓
Clean Water Act Section 319	EPA provides grants to states and tribes that support a wide variety of activities to enhance nonpoint source pollution efforts.	✓	✓	✓	✓	✓	✓
Clean Water State Revolving Fund	EPA provides communities with low-cost financing for a wide range of water quality infrastructure projects.	-	-	✓	✓	✓	-
Drinking Water State Revolving Fund	EPA provides financial support to water systems and state safe water programs to help ensure safe drinking water.	-	-	✓	✓	✓	-
National Estuary Program	EPA provides funds through grants and interagency agreements with state agencies and tribes to help implement the Puget Sound comprehensive conservation and management plan and fund restoration projects, among other things.	✓	✓	✓	✓	✓	✓
National Pollutant Discharge Elimination System	EPA has oversight authority over Washington State's administration of the National Pollutant Discharge Elimination System permit program to regulate point sources of pollution, such as wastewater treatment facilities and industrial facilities. EPA fully implements the program for federal facilities and tribal lands in the state.	-	✓	✓	✓	-	-
Superfund	EPA is responsible for the cleanup and recovery of the nation's most contaminated lands, including sites within Puget Sound.	✓	✓	✓	✓	✓	-
Water Enforcement	EPA supports water enforcement programs in Washington State, such as watershed monitoring to better identify sources of fecal coliform bacteria.	-	-	✓	✓	✓	-

Questions Submitted for the Record by Representative Quigley

COAL COMBUSTION RULE

Question: On March 4th, the first comprehensive, national report was released that concludes, based on industry data, that nearly all (91 percent) coal plants nationwide have severely contaminated groundwater with toxic chemicals like arsenic, cobalt, lithium and radium. There is nothing in the FY 2020 budget that reflects additional water testing, enforcement and assistance to adversely impacted communities, many of which are low-income communities and communities of color. What is EPA doing to protect vulnerable communities near coal plants and to safeguard the nation's drinking water, lakes and streams from this deadly and well-documented contamination from coal ash?

Answer: EPA's 2015 Coal Combustion Residuals (CCR) rule protects communities and their environmental resources near CCR landfills and surface impoundments. EPA is overseeing the rule's implementation and is working closely with our state partners. The CCR rule is in effect and is being implemented today nationwide by coal fired utilities. EPA is developing a permit program under the authority of 2016 Water Infrastructure Improvements for the Nation (WIIN) Act and we are encouraging states to create their own permit programs. In addition, should EPA find that a facility is not complying with the requirements of the CCR rule, EPA has many options, including initiating an action to enforce the rule's requirements.

Under the CCR rule, regulated entities are required to develop a publicly available website and post compliance information, including fugitive dust control plans, structural stability assessments and groundwater monitoring reports that provide information on specific constituents in groundwater near their facilities. In addition, where groundwater monitoring shows levels of contaminants above specified levels, facilities are required to initiate corrective action to address the groundwater contamination. EPA will be working closely with our state partners and others to monitor these actions.

Question: In July 2018, EPA weakened the federal coal ash rule, and EPA plans this year to issue at least two additional rules to further weaken federal health protections, which will harm communities near coal ash dumps, particularly low-income communities and communities of color. In light of the widespread evidence of groundwater contamination at almost all coal plants, how can you justify these regulatory rollbacks?

Answer: In July 2018, EPA finalized revisions to the federal CCR rule. These revisions provided a limited amount of additional time for units to cease receiving waste and begin the process of closing the unit. In addition, the revisions provided some limited flexibilities to Directors of state CCR programs, which were authorized under the 2016 Water Infrastructure Improvements for the Nation (WIIN) Act. Since that time, the date for certain units to cease receiving waste was challenged and it has been remanded to EPA for additional action.

EPA is planning additional regulatory efforts during FY 2020. A proposed rule to address the timing considerations was recently signed. Proposed regulations for the federal CCR permit program as well as proposals addressing provisions of the CCR rule vacated and remanded back to EPA by the D.C. Circuit Court's August 2018 decision and provisions remanded back to EPA by the court's March 2019 decision are under development. Any proposed rule will be subject to notice and public comment, and EPA will consider and address the comments it receives.

EPA STAFFING (REGION 5)

Mr. Wheeler, the more than 30% budget cut to EPA that you are somehow here to defend is irresponsible and unconscionable. It represents a disservice to every single American that has become all too typical of this administration. One of the nonsensical consequences of your proposed cut is the elimination of 1,961 EPA career staff – including 130 scientists and engineers at EPA Region 5 who are responsible for ensuring the clean air, water, and land for six states. What's worse is that the Trump Administration's proposed 90% cut to the Great Lakes Restoration program- despite the fact that Congress has repeatedly rejected slashing GLRI- would cut another 70 region 5 staff.

Question: How does cutting roughly 20% of the enforcement staff of EPA's Region 5 office help protect the health and safety of people in Illinois or help EPA achieve its mission?

Answer: The Administrator's priority is to ensure that EPA programs have the right mix of personnel and contract and grant resources needed to protect human health and the environment. While the majority of enforcement and compliance assurance activity is carried out by authorized states and tribes, the EPA retains its enforcement authority in authorized states and will use it appropriately where states or tribes lack the capability, resources or will to act, particularly where there is an unaddressed public health or significant environmental threat. To ensure the best use of combined resources where a state is authorized to implement a federal enforcement program, the EPA recently released for public comment a revised policy on *Enhancing Planning and Communication Between the EPA and States in Civil Enforcement and Compliance Assurance Work*.

EPA: REGIONAL ENFORCEMENT – STAFFING

Mr. Wheeler, the EPA under this Administration is not bringing enforcement cases against polluters at near the rate of the previous 5 Administrations. As a result, there has been widespread criticism that EPA is not conducting enough inspections to ensure that laws are followed.

Question: With enforcement already at historic lows, how can this Administration justify a 15% cut to each regional office?

Answer: The EPA's enforcement efforts continue to be focused on achieving compliance, not on the number of individual actions taken. However, we will not hesitate to take enforcement actions particularly in criminal cases. In both 2018 and to date in 2019 we have filed more criminal cases then the previous year reversing a downward trend that began in 2011. To achieve the desired outcome, the EPA works in partnership with states and tribal agencies to ensure compliance, protect public health and the environment, and ensure a level playing field for businesses. Recognizing that states are the primary implementers of our nation's environmental laws, the EPA will focus where it can provide the most value including matters affecting multiple states or tribes, serving as a backstop when a state or tribe does not address serious noncompliance in a timely fashion, and assisting states and tribes when they lack the capability, resources, or will to address noncompliance.

EPA: STAFFING

Mr. Wheeler, all EPA Offices have lost engineers and scientists that have not been replaced. For example, Region 5 has lost over 120 engineers and scientists since 2017 to attrition and retirement. Yet, EPA did not spend $3M it had in FY 2018 to hire replacement staff that the Region had available in the "environmental program and management" account.

Question: Why did each Region not spend down the accounts designated for staff salaries and expenses when management knew the Regions were desperately in need of staff in 2018?

Answer: The EPA's Regional offices prioritize hiring to ensure they have the staff to support the Agency's mission. However, in some regions attrition was higher than anticipated, which resulted in unobligated balances. 40% of the EPA workforce is eligible to retire and we are working aggressively to target hiring and retention in key areas.

Question: As of April 2, 2019, Region 5 has not replaced even 20% of the staff the Region lost in FY 2018. What specific steps will you take to speed up the hiring in each Region?

Answer: The EPA monitors hiring time by program and Region to track progress and status both for the hiring program or Region and EPA's Human Resources (HR) Shared Services Centers, which process HR actions for the EPA. The EPA uses time-to-hire data to target resources and senior management attention to ensure the EPA brings on employees as quickly as possible. From FY 2018 to FY 2019, the EPA reduced its time to hire by 60 percent. The EPA is currently undertaking multiple projects to identify improvements to individual steps in the process to further reduce the time to hire. The EPA is making use of direct hire authority for science, technology, engineering, and mathematics (STEM) professions, such as chemists and biologists, which significantly shortens the time to hire. The EPA also is increasing the use of non-competitive hiring authorities, such as Schedule A, noncompetitive eligibility hiring status (i.e., Returned Peace Corps Volunteers, Americorps), and Veterans' Recruitment Appointment. Additionally, the EPA is using strategic recruitment to identify positions of need and advertising positions with multiple duty

stations to provide different Regional offices and programs the opportunity to make selections from one recruitment action, which reduces workload on the HR Shared Service Centers and reduces time to hire.

With respect to Region 5, the Regional office approved more than 50 external recruitment requests between December 2018 and April 2019. Those recruitments are in various stages of the hiring process.

EPA: WILLOWBROOK, IL AND EPA'S INTEGRATED RISK INFORMATION SYSTEM (IRIS) PROGRAM (1 OF 2)

Mr. Wheeler, I am deeply concerned about ongoing political interference in EPA's Integrated Risk Information System (IRIS) program and how that interference may have exposed people in Illinois to an extremely dangerous toxin that EPA should have caught. EPA has a longstanding policy of using finalized, peer reviewed IRIS values in its Risk and Technology Review rulemaking process. Yet in the case of ethylene oxide, a potent carcinogen, EPA engaged in a highly irregular public comment period after the risk assessment had already undergone public comment, external peer review, internal review, review by other agencies, and review by the Office of the President.

Question: Can you explain why EPA requested comment on an already finalized IRIS health risk assessment? Would you characterize this as standard practice?

Answer: On February 4, 2019, EPA proposed to amend the 2003 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hydrogen Chloride (HCl) Production. Following a residual risk and technology review (RTR) required by the Clean Air Act, the EPA proposed minor amendments to enhance the effectiveness of the rule by improving compliance and implementation. The Agency also asked for public comment on the use, for regulatory purposes, of the Integrated Risk Information System, or IRIS value, for ethylene oxide (EtO), which was updated in 2016, to help inform this or any future separate actions addressing the ethylene oxide risks. This was prompted by the fact that, in this particular case, the evaluation of facility-wide risks at HCl production facilities revealed that the maximum facility-wide cancer risk was driven mainly by ethylene oxide (EtO) emissions from a variety of industrial processes, none of which were part of the HCl production source category itself.[1]

After acknowledging that it was "addressing ethylene oxide based on the results of the latest [National Air Toxics Assessment] released in August 2018," the EPA explained that it was interested in receiving public comments on the use of the updated risk value for regulatory purposes. The National Air Toxics Assessment reflected the IRIS risk value was updated in 2016 and had "estimate[d] that ethylene oxide significantly contributes to potential elevated cancer risks

[1] Please refer to 84 Fed. Reg. Page 1583 (Feb. 4, 2019)

in some census tracks across the U.S."[2] The EPA sought this additional information to inform the Agency's evaluation of opportunities to reduce ethylene oxide emissions as part of its regulations review, and to assist the EPA in "determining whether more immediate emission reduction steps are necessary in any particular locations."[3] The comment period closed on April 26, 2019. We will consider and respond on the record to the public comments we receive, including those comments that may address the IRIS value.

Question: Would you agree that ignoring a finalized IRIS value and reopening the process for public comment after finalization undermines the scientific integrity of the Agency and the protection of the public?

Answer: The EPA is not ignoring a finalized IRIS value nor reopening the process for public comment after finalization. The Agency has stated that it is "interested in receiving public comments on the use of the updated risk value [for ethylene oxide] for regulatory purposes."[4] It is important to remember that the IRIS process is not a regulatory process.

EPA: WILLOWBROOK, IL AND EPA'S INTEGRATED RISK INFORMATION SYSTEM (IRIS) PROGRAM (2 OF 2)

In 2016, the IRIS process found ethylene oxide to be 30 times more carcinogenic than previously suspected, yet it appears that EPA tried to undermine the IRIS finding for that chemical through this irregular comment period on a rulemaking that depended on the IRIS value. In the Chicago area, a local medical sterilization plant has been closed by Illinois EPA- not USEPA- as a result of ethylene oxide emissions and the IRIS finding about their danger.

Question: Who made the decision to include a request for comment on the 2016 ethylene oxide health risk assessment rulemaking process?

Answer: As with all EPA rules, with respect to the proposed results of the Risk and Technology Review (RTR) for and amendments to the NESHAP for the HCl Production source category, EPA staff across a number of offices developed the preamble language for the proposal.

Question: Why was this decision made?

Answer: The EPA explained the purpose of this request for comment in the preamble to the proposed RTR for the HCl Production source category. Specifically, the Agency's solicitation of public comment on the use, for regulatory purposes, of the Integrated Risk Information System, or IRIS value, for ethylene oxide was prompted by the fact that the evaluation of facility-wide risks at HCl production facilities revealed that the maximum facility-wide cancer risk was driven mainly

[2] Idem, page 1584
[3] Idem, Page 1584
[4] Please refer to 84 Fed. Reg. Page 1584 (Feb. 4, 2019)

by ethylene oxide emissions from a variety of industrial processes, none of which were part of the HCl production source category itself. [5]

After acknowledging that it was "addressing ethylene oxide based on the results of the latest [National Air Toxics Assessment] released in August 2018," the EPA explained that it was interested in receiving public comments on the use of the updated risk value for regulatory purposes. The National Air Toxics Assessment reflected the IRIS risk value was updated in 2016 and had "estimate[d] that ethylene oxide significantly contributes to potential elevated cancer risks in some census tracks across the U.S."[6] The EPA sought this additional information to inform the Agency's evaluation of "opportunities to reduce ethylene oxide emissions as part of its regulations review," and to assist the EPA in "determining whether more immediate emission reduction steps are necessary in any particular locations."[7]

EPA: ETHYLENE OXIDE EXPOSURE IN ILLINOIS

Administrator Wheeler, in addition to the medical sterilization facility in Willow Brook, Illinois that has been closed down by IEPA, there are two other facilities in Lake County that may be emitting dangerous levels of ethylene oxide. Local and state authorities- let alone US EPA which continues to ignore its responsibilities to the people of Illinois- cannot act because they lack sufficient data about the other factories.

Question: Will you commit to take the problem of ethylene oxide exposure in Illinois seriously and agree to increase EPAs monitoring of potentially problematic facilities in Lake County?

Answer: We have taken the issue of ethylene oxide seriously from the beginning and the career staff of this Agency have spent countless hours doing so. The EPA and the Illinois Environmental Protection Agency are coordinating with the facilities in Lake County, Illinois, to achieve additional emission reductions. The Agencies are also using a variety of tools, such as air dispersion modeling, to better characterize potential risks near the Lake County facilities, as well as other facilities and areas that NATA (EPA's screening tool) identified as potentially having elevated risks. The Agency is coordinating with the Lake County Health Department on the testing they are planning and also is providing technical assistance.

[5] Please refer to 84 Fed. Reg. Page 1583 (Feb. 4, 2019)
[6] Idem, page 1584
[7] Idem, Page 1584

EPA: LEAD IN SCHOOL DRINKING WATER

Last Congress, a report from the Government Accountability Office (GAO) that found that only 43 percent of school districts nationwide tested for lead in their schools' drinking water in 2016 and 2017, and of those that tested, 37 percent found elevated lead levels. The GAO also concluded that despite the Department of Education and EPA's memorandum of understanding to address the exposure of lead in schools, your agency and the Department of Education do not regularly collaborate to support state and school district efforts on lead in drinking water. In addition to introducing the Get the Lead Out of Schools Act, on August 20, 2018, I joined many of my colleagues and wrote to both you and Secretary DeVos to urge you to take immediate action to finalize protective guidance.

Question: Since the release of this report, what measures have you taken to require all schools and school districts to test for lead in all fixtures, and provide bottled water or lead infiltration devices for any schools exceeding the action level now and in the future?

Answer: Under the proposed revisions to Lead and Copper Rule announced on October 10, 2019, for the first time, systems would be required to test school and child care facilities. Since children are among the most vulnerable to the effects of lead, the EPA is proposing that community water systems (CWSs) sample drinking water outlets at each school and each child care facility served by the system. The system would be required to provide the results and information about the actions the school or child care facility can take to reduce lead in drinking water.

The EPA's recently updated *Training, Testing, and Taking Action for Reducing Lead in Drinking Water in Schools and Child Care Facilities Toolkit* is also a helpful resource to assist schools and child care facilities with establishing their own programs for testing drinking water lead levels. The EPA will continue, as appropriate, to work together with our state co-regulators to ensure schools are collecting samples at the right locations and intervals and are looking at practices or equipment that could be causing potential increases in lead exposure, such as old water fountains in the school. In addition, the EPA recently announced the allotments for a new grant program to support voluntary lead testing of drinking water at schools and child care facilities authorized under Water Infrastructure Improvements for the Nation Act. This new grant program issued its first grants in September 2019.

CLIMATE CHANGE

Administrator Wheeler, you've said publicly that you believe that mitigating and adapting to climate change should not be a priority of the EPA under your watch. You've said that you don't believe that climate change impacts will be a problem for 50 years or more. Setting aside that we're already seeing the impacts of climate change, from ocean acidulation and glacial melt to severe

weather and major ecosystem impacts, it strikes me that if we see a planet-wide economic and environmental disaster looming, we should probably act to do something about it.

Question: As Administrator of the Environmental Protection Agency, please explain why your de-prioritization of climate change does not represent a betrayal of your agency's mission and purpose and a complete failure to fulfil the basic requirements of your job?

Answer: The EPA is committed to implementing environmental law as Congress intended. The Agency will continue to fulfill its legal obligations as described in the President's Budget.

Questions Submitted for the Record by Representative Simpson

RENEWABLE FUEL STANDARD - WOOD BIOMASS EXCLUSION

I asked this question of Administrator Pruitt in 2018. Currently, federal land biomass is not eligible to be counted toward the Renewable Fuels Standard (RFS). Biomass was eligible in the 2005 standard, but the 2007 Energy and Security Independence Act did not allow for federal land biomass to count towards the RFS.

The original Renewal Fuels Standard envisioned advanced biofuels coming from a number of feed-stocks, including forest products waste. Those anticipated levels of biofuel production have not occurred, partly because of the restriction in the original law disallowing the use of wood waste coming off federal timber.

Question: Would you support removing this restriction?

Answer: While we agree that Congress intended to promote renewable feedstocks for use in the RFS, we also understand that Congress intended to restrict the types of wood that would be able to qualify. This included restricting the use of woody biomass from Federal lands to only the "immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, as risk of wildfire." The EPA is committed to implementing the RFS program as directed by Congress.

Questions Submitted for the Record by Representative Stewart

ENVIRONMENTAL PROTECTION AGENCY DIRECTOR ANDREW WHEELER

On the morning of August 5, 2015, the U.S. Environmental Protection Agency (EPA) and its contractors were performing remedial work at the abandoned Gold King Mine in Colorado. Suddenly, they opened a barrier holding back over three million gallons of toxic acid wastes contaminated with arsenic, lead, mercury, cadmium, and copper. The resulting uncontrolled blowout of acid wastes and toxic metals into rivers in Colorado, Utah, New Mexico and the Navajo Nation is one of the largest single inland pollution events in American history.

EPA immediately accepted responsibility and the Bonita Peak Mining District, where the Gold King Mine is located, was designated a national Superfund site. EPA has concentrated its work there but has taken no remedial action outside of the District. Based upon EPA's studies, the contamination will ultimately be deposited in the sediments in Utah. The remedial costs and natural resource damages could exceed $2 billion based upon EPA's actual cost at other similar contaminated sediment sites.

The State of Utah spent two years in settlement discussions with EPA. Faced with the statute of limitations, it was required to file its lawsuit to meet the time limit. The Justice Department then cut-off Utah's discussions with EPA. Utah's lawsuit was consolidated with those by New Mexico, the Navajo Nation, and private plaintiffs and transferred to a multi-district litigation (MDL) proceeding presided over by the Chief U.S. District Judge in New Mexico.

Last week, the Court neared completion of the pleading stage where the motions to dismiss by defendants were largely denied. The Court citied Utah's showing that the EPA has not commenced or planned any remedial action in the state and denied EPA's arguments based upon sovereign immunity. The next step is for EPA to admit or deny Utah's factual allegations in their answers, which poses particular problems for EPA because those allegations are largely quoted from the federal government's own investigative reports on the blowout.

Given the early rejection of EPA's attempts to avoid liability, Utah believes this is a good time to renew settlement discussions with EPA and has asked the Justice Department to cooperate. The Justice Department controls the Judgment Fund which is used to pay tort claims, and EPA controls payments under statutes such as the federal Superfund.

Question: The EPA and its contractors are responsible for the August 5, 2015 Gold King Mine disaster that released over three million gallons of toxic waste into rivers in Utah, Colorado, New Mexico, and the Navajo Nation. What are your plans to work on remediation with the state of Utah? I recognize you are currently in a lawsuit with Utah and other parties, but the status of the lawsuit does not preclude your sharing views with me and the Subcommittee on how to work with the state on remediation. I'm specifically interested in your views on the use of compensatory mitigation in this case.

Answer: The EPA worked with, and will continue to work with, the State of Utah and other states, tribes, and local governments to investigate potential legacy mining impacts, including releases from the Gold King Mine. These investigations are crucial to determining what response actions may be appropriate.

The EPA has provided financial support for state, local, and tribal response work and related activities. In the aftermath of the Gold King Mine release, the EPA dedicated more than $42 million in resources to address both that release and the mining impacts to the environment from the Bonita Peak Mining District Superfund Site. This funding also includes more than $3.7 million in emergency response reimbursements to states, tribes, and local governments. Specific to Utah, the EPA has reimbursed the state for more than $700,000 in emergency response costs.

Additionally, in the 2016 Water Infrastructure Improvements for the Nation Act, Congress authorized appropriations to the EPA of $4 million per year in fiscal years 2017–2021 to "develop and implement a program for long term water quality monitoring of rivers contaminated by the Gold King Mine release." Pursuant to Congress' charge, the EPA is working cooperatively with Utah and the other downstream states, tribes, and local governments to monitor water quality throughout the watershed, assess the data, and inform the public on the condition of the watershed. To date, the EPA has provided the State of Utah with approximately $1 million for projects such as:

- Studying Lake Powell sediment cores to better understand the source of metals deposited in the lake and to evaluate impacts on water quality, public health, and aquatic life.
- Developing a regression model for suspended sediment concentration and total metal concentrations and loads in real-time.
- Leading a watershed-wide modeling effort in the San Juan River drainage area to provide a framework to identify areas of importance for resource prioritization and implementation of best management options to restore water quality.

The EPA has involved Utah and the other downstream states, tribes, and local governments in EPA scientific reports pertaining to the Gold King Mine release. The EPA's November 2018 report analyzing the potential impacts of the Gold King Mine release on fish and other organisms in the Animas and San Juan Rivers was based in part on data provided and peer reviewed by states (including Utah) and tribes (https://www.epa.gov/goldkingmine/biological-response-report).

The EPA continues to address ongoing mine releases from the Gold King Mine, and from the many other sources of mining-related releases from the Bonita Peak Mining District Superfund Site, which collectively discharge an estimated 5.4 million gallons of mine-influenced water per day. The EPA continues to operate the Gladstone Water Treatment Plant, which treats mining drainage from the Gold King Mine, and the EPA is evaluating longer-term options to address water quality from sources within the Bonita Peak Mining District Superfund Site. The EPA issued a proposed plan for interim remedial actions to address ongoing releases of hazardous substances at

26 source areas within the Superfund Site. Utah and other downstream states, tribes, and local governments were invited to provide input on the proposed interim remedial actions. Although the EPA has proposed interim remedial actions, it has not yet selected a final remedial action for the Bonita Peak Mining District Superfund Site.

Questions Submitted for the Record by Representative Amodei

TIRE CRUMB

Question: I understand a report on Recycled Tires Used on Playing Fields is past due but imminent and realize the study is not yet complete. When this information is released to the public, will it answer the question of any associated exposure risks in artificial turf or playgrounds as the public and industry have been seeking?

Answer: The timeline the EPA, Centers for Disease Control (CDC), Agency for Toxic Substances and Disease Registry (ATSDR), and the U.S. Consumer Product Safety Commission (CPSC) initially set for the research activities included under the *Federal Research Action Plan (FRAP) on Recycled Tire Crumb Rubber Used on Synthetic Turf Playing Fields and Playgrounds* has been affected by a number of factors including the time needed to obtain important federal approvals and the need to address external peer review comments.

A goal of the FRAP is to characterize potential human exposures to the substances contained in recycled tire crumb rubber used on synthetic turf fields. Results of the effort will be reported in two parts. Part 1 (Recycled Tire Crumb Characterization report) communicates the research objectives, methods, results, and findings for the tire crumb rubber characterization research (i.e., what is in the material). Part 1 was released to the public on July 25, 2019. In general, the findings from the report support the premise that while chemicals are present, as expected, in the tire crumb rubber, human exposure may be limited based on what is released into air and/or simulated biological fluids. Part 2, to be released at a later date, will document the results from the exposure characterization (i.e., how people come in contact with the materials, how often, and for how long), including a biomonitoring study being conducted by CDC/ATSDR. CPSC is conducting the work on playgrounds and results from that effort will be reported separately.

When finalized, neither Part 1 nor Part 2 of this study, separately or combined, will constitute an assessment of the risks associated with playing on synthetic turf fields with recycled tire crumb rubber infill. When this study was ordered in 2016, it was not supposed to be a risk assessment. The results of the research described in the final versions of both Part 1 and Part 2 of this study should inform future risk assessments.

For more information, please visit: https://www.epa.gov/chemical-research/federal-research-recycled-tire-crumb-used-playing-fields

SOLID WASTE MANAGEMENT

The Resource Conservation and Recovery Act (RCRA) subpart D requires triennial EPA review of state solid waste management plans. In 2016 the EPA entered into a consent decree mandating rulemaking or a determination of non-action by spring of this year.

Question: What engagement with state regulators did the EPA undertake to make this determination? Specifically has the EPA talked directly to state regulators or national organizations representing states and if so, who specifically was contacted?

Answer: In response to the Consent Decree on Regulations for Wastes from Oil & Gas E&P Operations, the EPA conducted a review of publicly-available information from government, industry, and academic sources to inform the EPA's determination on whether changes were necessary to the federal solid waste regulations and guidelines for state solid waste management plans.

During the review period, a representative from the EPA attended several conferences convened by state regulators or national organizations representing states, to learn and discuss current issues relevant to state oil and gas waste programs. Below is a summary of those contacts:

- 10/10/2016 – The EPA participated in conference call between the EPA, DOJ, an attorney working on behalf of the state of North Dakota, a representative from the Oil and Gas Division of the North Dakota Industrial Commission, and a representative from the North Dakota Department of Environmental Quality.
- 3/21/2018 – The EPA attended Environmental Council of States (ECOS) Spring meeting in St. Paul, MN, including a Shale Gas Caucus meeting during this time.
- 9/6/2018 – The EPA participated in a conference call between the EPA and executive directors of national organizations representing states: Lori Wrotenbery (Executive Director, Interstate Oil and Gas Compact Commission (IOGCC)) and Mike Paque (Executive Director, Groundwater Protection Council (GWPC)).
- 9/30/2018 – The EPA attended the IOGCC National Meeting in Coeur d'Alene, ID, and spoke to Lori Wrotenbery (IOGCC), Mike Paque (GWPC), Leslie Savage (Texas Natural Resource Conservation Commission (TNRCC)).
- 10/26/2018 – The EPA attended the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) annual meeting and spoke to small group of EPA and state officials including Bob Blankenburg (AK) and Cathy Jamieson (VT).
- 12/17/2018 – The EPA met in person with Lori Wrotenbery (IOGCC) and Mike Paque (GWPC).

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Chairwoman Eddie Bernice Johnson

1. During the hearing, Representative Weber asked whether the uptick in unhealthy air days in some parts of the country last year was due to the EPA rolling back environmental protections, or because of natural variation. You responded, "It's both."

    a. Can you elaborate on how the uptick in unhealthy air days is due both to your Administration's regulatory rollbacks and natural variation?

    b. What is the relative contribution of EPA's regulatory rollbacks to an increase in unhealthy air days, compared with natural variation? What evidence did you use to reach this conclusion?

    EPA Response: I did not say that the uptick in unhealthy air days was because of regulatory rollbacks. I clearly stated that it was due to both tighter regulations that have been strengthened and naturally occuring events that have caused areas to exceed those tighter requirements.

2. The EPA did not answer a previous question that was submitted for the record for this Committee's March 27, 2019 hearing on EPA's IRIS program on whether Mr. David Dunlap participated in the decision-making process around eliminating the IRIS review of formaldehyde prior to his December 2018 recusal from this issue. Representative Wexton repeated this question in the September 19 hearing. You replied that to your knowledge Mr. Dunlap "hasn't been involved in any of the formaldehyde decisions." You then reiterated to Representative Wexton that you would look into providing confirmation of this.

    a. Can you please provide confirmation on Mr. Dunlap's involvement in the elimination of the IRIS review of formaldehyde from the December 2018 IRIS program outlook?

    EPA Response: Prior to joining federal service on September 30, 2018, Office of Research and Development (ORD) Deputy Assistant Administrator David Dunlap served as Director of Regulatory Environmental Affairs for Koch Industries. As a political appointee, Mr. Dunlap is subject to Executive Order 13770, including the restrictions found at §1, ¶6 regarding former employers. On October 3, 2018, Mr. Dunlap signed the Trump Ethics Pledge, under which, for a period of two years following his entry into federal service, he

cannot participate personally and substantially in any particular matter involving specific parties that is directly and substantially related to his former employer, Koch Industries. Mr. Dunlap is not permitted to meet with Koch Industries or interact with Koch Industries in his official capacity nor may he participate personally and substantially in any specific party matter in which Koch Industries is a party or represents a party. Mr. Dunlap also may not attend any meeting in which Koch Industries is present, unless the subject matter of the discussion is a particular matter of general applicability and at least four other entities representing a diversity of interests are present, besides Koch Industries.

As a new appointee, Mr. Dunlap consulted with career ethics officials in the EPA's Office of General Counsel regarding his ethical obligations. Mr. Dunlap completed his new employee ethics training in person on October 3, 2018 and has issued recusal statements to memorialize his obligation to recuse himself from certain matters involving his former employer and his spouse's employer. Mr. Dunlap also committed to a screening arrangement whereby other employees in ORD will redirect, without his knowledge, any matters involving his former employer. Mr. Dunlap will continue to recuse himself from specific party matters (e.g. lawsuits, enforcement actions, permits) in which his former employer and its subsidiaries are a party or represents a party, and any matter affecting his spouse's employer as a specific party or as a member of an affected class. As Mr. Dunlap carries out his duties as Deputy Assistant Administrator for ORD, he is permitted to rely upon and utilize his own prior expertise and experience. Federal ethics regulations do not prohibit him or other employees from relying on their prior knowledge or expertise when working in their EPA capacity.

As the Agency has previously detailed to the Committee in a July 19, 2019 response, because Integrated Risk Information System (IRIS) assessments play a critical role in supporting Agency decisions and can involve a significant expenditure of time and resources, at my direction ORD Principal Deputy Assistant Administrator for Research and Development and Science Advisor Jennifer Orme-Zavaleta, conveyed in a request dated August 10, 2018, established a more formal, structured process for identifying IRIS priorities. This process included a requirement that all IRIS priorities be approved by the program's Assistant Administrator. This initial formalized prioritization process was completed in December 2018, and it is bringing further stability and responsiveness to the IRIS program. It is important to note that Mr. Dunlap joined federal service on September 30, 2018, well after I had directed Principal Deputy Assistant Administrator Orme-Zavaleta to send out the August 10 memo. The August 10 memo established a more formal, structured process for identifying IRIS program priorities—which resulted in EPA program offices not selecting formaldehyde as a priority for the IRIS program.

Although not required by federal ethics law or regulation, Mr. Dunlap voluntarily recused himself from participating in matters related to the EPA's IRIS assessment on formaldehyde, which is not a specific party matter and therefore is not subject to the terms of the Trump Ethics Pledge. Nevertheless, to avoid even the appearance of any loss of impartiality, Mr. Dunlap chose to recuse himself.

3. A variety of Agency rulemakings have justified major regulatory rollbacks by excluding co-benefits from economic impact analyses. Further, in a May 2019 memo, you directed the heads of four

Program Offices to develop regulatory proposals for changes to cost-benefit analyses for rulemakings under each statute. The original Advanced Notice of Proposed Rulemaking on cost-benefit analysis suggested that EPA is considering doing retrospective analyses on rulemakings that have already been finalized, looking at the actual costs and benefits that have occurred in the history of each Rule.

a. Given that excluding co-benefits, also known as ancillary benefits, does not comply with OMB's Circular A-4 best practices released in 2003 on regulatory impact analysis, is the agency planning to develop its own RIA guidelines that supersedes OMB's guidance?

   EPA Response: Significant regulatory actions are developed in accordance with the law and supporting analyses are consistent with OMB guidance, including A-4, as well as the EPA's economic guidelines. The EPA's *Guidelines for Preparing Economic Analyses*, originally issued in 1983, are part of a continuing effort by the EPA to develop improved guidance on the preparation and use of the best available science in support of the decision-making process. The EPA developed these guidelines to provide support to EPA program offices in analyzing the benefits, costs, and other economic impacts of regulations and policies, and to ensure that our analyses are consistent with OMB principles and guidance. Our last major update of the guidelines was issued in 2010.

   As described in the May 2019 memo, the EPA is in the process of updating the guidelines to help clarify best practices for how to conduct benefit-cost analysis, including expanded discussion of key methodological and modeling choices, assumptions, uncertainties, and context around benefits and costs (including ancillary benefits and countervailing risks). The EPA expects to complete the Scientific Advisory Board (SAB) peer review of the revisions in 2020.

b. What is the timeline for each of the four Program Offices' proposals for cost benefit analysis?

   EPA Response: The May 2019 memo instructed each program office to develop proposals where the authorizing statutes allow. The EPA's Office of Air and Radiation was directed to undertake the first of these rulemakings, which is still an ongoing process.

c. What is EPA's justification for this change of a precedent for the use of science in regulatory impact analyses that has been employed at EPA for decades?

   EPA Response: There has been no change of precedent for the EPA's use of science in regulatory impact analyses.

d. Will retroactive analyses be included in the rulemakings from the three Program Offices on cost benefit analysis?

   EPA Response: The EPA's 2018 advanced notice of proposed rulemaking (ANPRM) requested comment regarding "…opportunities and challenges associated with issuing regulations to require retrospective analysis and the concomitant need to collect data in order

to conduct a meaningful retrospective analysis." The EPA will continue to consider how retrospective analyses can yield insights about the realized costs and benefits of actions that may help inform future rulemakings.

4. In EPA's responses to this Committee's questions for the record for our March 27th hearing, we were told that EPA will conduct an interagency survey process on IRIS assessments on an annual basis, and that the 2019 process was slated to begin this summer.

   a. Has EPA already issued any survey or request for information to program offices as part of this process?

      EPA Response: Yes. A formal solicitation for the EPA's Integrated Risk Information System (IRIS) program assessments was announced on September 9, 2019, with a respond-by date of October 18, 2019.

   b. Is the survey process the same as last year?

      EPA Response: The EPA planned this year's process similarly to that which occurred in August 2018, with a memo from Office of Research and Development (ORD) leadership to the EPA program offices. The memo included a standardized prioritization template for nominating IRIS assessments, and the memo clearly stated the purpose, type of assessment needed, and deadlines. This ensured that every program office had the opportunity to submit its priorities.

   c. The 2018 process reduced the workflow from 23 chemicals to 13. Do you anticipate reducing the IRIS workflow even further with the 2019 process?

      EPA Response: Through the prioritization process, EPA programs and regions can formally identify what assessments are a priority program need, why an assessment is needed, and when the assessment is needed. The IRIS program will adjust its workflow based on the priority chemicals identified through this process. The IRIS program will continue with the 13 chemicals: vanadium, inorganic mercury salts, ethyl tertiary butyl ether (ETBE), tert-Butyl alcohol, inorganic arsenic, chromium VI, methylmercury, polychlorinated biphenyls (PCBs), and five PFAS chemicals. The IRIS program will determine additional assessments that may be identified as priorities.

   d. If program offices state a need for an assessment that has been discontinued and/or suspended, will you consider adding it back to the IRIS workflow?

      EPA Response: Yes. New nominations will be considered.

   e. Can EPA send the Committee the materials sent this year to program and regional offices soliciting their priorities for IRIS assessments?

      EPA Response: Yes. Please see the enclosed documents.

5. On March 4th, I sent a letter with Senate colleagues requesting documentation about this Administration's decision-making process to eliminate chemicals from the IRIS workflow. The Committee received no written response until July 19, four and a half months later. EPA has been sending documents to us in a sporadic fashion since that time and we have received about 2,500 pages to date. However,

    - 30% of those pages document communications from before this Administration even began.
    - 241 pages were just scans of morning news clips from Politico.
    - EPA also included five full reprints, 226 pages, of a 2017 study funded by a formaldehyde manufacturer.
    - EPA included four full reprints of a 2016 study funded by the chemicals trade association that was prepared by the same author. Not surprisingly, these studies seek to refute the link between formaldehyde and leukemia.

    As far as we can tell, only about 20% of the production is from the right Administration and at least tangentially related to the request, and those pages are very heavily redacted. Only six percent at most of the documents EPA has shared with this Committee are in any way useful.

    a. When will EPA share the other materials in its possession that speak directly to our March 4 inquiry?

    EPA Response: On July 19, 2019, the EPA provided a response to the Committee detailing in length the Agency's prioritization process for the IRIS program and the shift of formaldehyde to be assessed by the TSCA program within the EPA's Office of Chemical Safety and Pollution Prevention (OCSPP). With this response, the Agency provided over 159 pages detailing an overview of the recent updates and work on the IRIS program and also two memos from ORD Principal Deputy Assistant Administrator for Research and Development and Science Advisor Jennifer Orme-Zavaleta—one dated August 10th which was soliciting requests for IRIS assessment prioritization, and another dated December 4th which provided the updated priorities for IRIS assessments after the prioritization process. Since this initial July 19th response, the Agency has sent three additional letters on August 2nd, August 16th, and August 30th along with enclosures containing, in total, 2,543 pages of responsive documents.

    As the Agency has previously detailed to the Committee in the July 19th response, because IRIS assessments play a critical role in supporting Agency decisions and can involve a significant expenditure of time and resources, at my direction Dr. Orme-Zavaleta, conveyed in a request dated August 10, 2018, established a more formal, structured process for identifying IRIS priorities. This process included a requirement that all IRIS priorities be approved by the program's Assistant Administrator. This initial formalized prioritization process was completed in December 2018, and it is bringing further stability and responsiveness to the IRIS program.

    Along with the documents included in the productions that the Agency has provided to date, Dr. Orme-Zavaleta testified before the Committee on March 27, 2019, and answered questions for an extensive amount of time on issues directly presented in the Committee's March 4, 2019 letter and articulated the decision-making process behind the IRIS assessment prioritization.

Specifically, in a July 18, 2019, letter to the Agency, Chairwoman Johnson requested internal Agency documents relating to the EPA's process for identifying Integrated Risk Information System (IRIS) program priorities. As the Agency has previously explained to the Committee, the EPA has determined that those documents are confidential, deliberative, and should not be released. The Agency provided the Committee a document from the Office of Children's Health Protection (OCHP) on November 19, 2019.

The EPA has been transparent in our production of documents and information to the Committee in the issues raised in letters, questions during testimony, and numerous conversations with Committee staff. To accuse the Agency of acting otherwise is completely false.

6. EPA's representative told this Committee in March that the Office of Children's Health Protection (OCHP) had listed formaldehyde as a priority chemical for IRIS review. The National Cancer Institute has found a relationship between formaldehyde exposure and cancer. So presumably OCHP wanted to understand that risk better. But your Agency has refused so far to share OCHP's written priorities for the IRIS program with this Committee.

    a. Can you provide OCHP's stated priorities from the second-round survey conducted in 2018?

    EPA Response: In a July 18, 2019, letter to the Agency, Chairwoman Johnson requested internal Agency documents relating to the EPA's process for identifying Integrated Risk Information System (IRIS) program priorities. As the Agency has previously explained to the Committee, the EPA has determined that those documents are confidential, deliberative, and should not be released. The Agency provided the Committee a document from the Office of Children's Health Protection (OCHP) on November 19, 2019.

    The EPA has been transparent in our production of documents and information to the Committee in the issues raised in letters, questions during testimony, and numerous conversations with Committee staff. To accuse the Agency of acting otherwise is completely false.

7. In December 2016 the IRIS program issued a new assessment of ethylene oxide that determined the cancer potency risk for adults inhaling the chemical was 30 times higher than previously thought. In August of 2018 EPA released an update to the National Air Toxic Assessment (NATA), establishing a new risk value for ethylene oxide based on the 2016 IRIS assessment. A few weeks later, the American Chemistry Council, who represents the manufacturers of ethylene oxide, sent you a letter. They asked EPA to do away with the new NATA risk value for ethylene oxide, charging that the IRIS assessment underpinning it was flawed.

    a. Does EPA have any plans to withdraw or change the National Air Toxics Assessment related to ethylene oxide as requested by ACC?

    EPA Response: In September 2018, the American Chemistry Council submitted a Request for Correction under the Information Quality Act asking that the "NATA risk estimates for [ethylene oxide] should be withdrawn and corrected to reflect scientifically-supportable risk values" (https://www.epa.gov/sites/production/files/201810/documents/iqa_petition_eosept_2018_0.pdf). The EPA will address this request in the context of the current rulemaking for

the National Emissions Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (also known "the MON").

The EPA's air program is currently using the updated toxicity value in its statutorily-required reviews of National Emissions Standards for Hazardous Air Pollutants (NESHAP), which includes a residual risk assessment. On December 17, 2019, the MON proposed rule was published in the *Federal Register*.[1] The risk assessment for that review used the toxicity value from the 2016 IRIS assessment.

In the MON proposed rule, the EPA proposed controls that would significantly reduce emissions of ethylene oxide from facilities with the highest risks. When assessing whether the post-control risks were acceptable, the EPA relied on health information and consideration of various uncertainties. The Agency included additional discussion of uncertainties in the MON proposed rule preamble and included an additional document in the docket for the rulemaking—*Sensitivity of Ethylene Oxide Risk Estimates to Dose-Response Model Selection.*[2] In the MON proposed rule, the Agency is requesting comment on the use of the updated toxicity value and alternative values.

b. Does EPA have any plans to withdraw or change the IRIS assessment on ethylene oxide itself?

EPA Response: No.

8. On July 1 of this year, EPA issued comments on the Army Corps of Engineers environmental review of the Pebble Mine Project, noting that the proposed project may have "substantial and unacceptable adverse impacts" on fisheries in the area. We learned later that these comments were toned down from an earlier draft, in which EPA scientists found the Army Corps' review itself had "major deficiencies" and could not be used to adequately inform the public about the potential impacts of Pebble Mine. But just a few weeks later, EPA announced, without an opportunity for public comment - that it would roll back the Section 404C determination on the proposed mine.

   a. Do you know of any new science-based information that emerged between July 1 and July 30 that would support a departure from the conclusions EPA reached in 2014 based on an extensive ecological evaluation, and had maintained for the past five years?

   b. Did the fishermen and tribes that seek to protect the salmon fisheries in Bristol Bay contact EPA between July 1 and July 30 to suggest that their concerns had been resolved?

   EPA Response: I am recused from this matter.

[1] Available at https://www.federalregister.gov/documents/2019/12/17/2019-24573/national-emission-standards-for-hazardous-air-pollutants-miscellaneous-organic-chemical.
[2] Available at https://www.epa.gov/sites/production/files/2019-11/documents/memo_sensitivity_of_ethylene_oxide_risk_estimates_to_dose-response_model_selection_c_.pdf.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Ms. Zoe Lofgren

1. During our hearing, we discussed the negotiations between EPA and the California Air Resources Board (CARB) to try to identify a compromise on fuel efficiency requirements for passenger vehicles. CARB made a proposal to EPA last fall for annual efficiency improvements that would be more stringent than the Trump Administration's proposal to cap mileage requirements. EPA staff analyzed and summarized this proposal in order to advise then-Assistant Administrator for Air and Radiation, Bill Wehrum, in November 2018. EPA ultimately rejected this proposal. The CARB proposal was materially very similar to the deal that was ultimately reached between CARB, Ford Motor Company, Honda Motor Company, BMW and Volkswagen and announced on July 25, 2019.

   During our September 19, 2019 hearing, I asked you share the briefing materials prepared by EPA staff that analyzed the offer that CARB made to EPA last fall. You committed to share materials. Can you please remit those documents to the Committee?

   EPA Response: EPA staff briefed former Assistant Administrator Bill Wehrum on November 20, 2018 on their technical assessment of the California Air Resources Board (CARB) proposal. When you asked if briefing materials can be shared during the hearing, I responded that "there may be deliberative documents involved." After checking, the Agency has determined these briefing materials are confidential and deliberative, and should not be released beyond the Agency. The EPA recognizes the importance of the Committee's need to obtain information necessary to perform its legitimate oversight functions and is committed to continuing to work with your staff on how best to accommodate the Committee's interests.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Ms. Suzanne Bonamici

1. Can you provide a specific example from the EPA's history where a regulatory action was unreliable or flawed because it considered data that did not meet the standards of the proposed Strengthening Transparency in Regulatory Science rule?

   EPA Response: The proposed Strengthening Transparency in Regulatory Science rule is intended to strengthen the scientific foundations of future EPA regulatory actions. Enhancing the transparency and validity of the scientific information relied upon by the EPA strengthens the integrity of the EPA's regulatory actions and its obligation to ensure the Agency is not arbitrary in its conclusions. The proposed rule would also complement federal transparency and data integrity laws, guidance, and memoranda, as well as ongoing work in the global scientific community to make underlying data available for reanalysis and validation. The proposed rule envisions that in ensuring the availability of underlying data, the EPA will build greater trust and certainty in its decision-making. As published in the *Federal Register*, the April 2018 proposed rule is intended to apply prospectively to final regulations that are determined to be "significant regulatory actions" pursuant to Executive Order 12866.

2. The scientific data that would be barred from consideration under the proposed Strengthening Transparency in Regulatory Science rule is vital to EPA's most critical regulations: lead in drinking water, toxic chemicals, mercury, air pollution and many more that affect the health and well-being of our communities. How does a rule that limits access to the best available science uphold the EPA's mission to protect human health and the environment?

   EPA Response: It is important to ensure that the science underlying Agency decisions is transparent and available for evaluation by the public and stakeholders. The proposed Strengthening Transparency in Regulatory Science rule seeks to ensure that the science and foundational data underlying the EPA's actions are publicly available. In line with this proposed rule, the EPA is already in the process of making its federally funded data available to the public. You can see the EPA's plan at epa.gov/open.

3. Will you commit to waiting for the Science Advisory Board to complete their comprehensive review of the proposed Strengthening Transparency in Regulatory Science rule before the Agency proceeds to finalize it?

EPA Response: The SAB has completed their consultation with the EPA on mechanisms for secure access to personally identifying information (PII) and confidential business information (CBI) as discussed in the proposed Strengthening Transparency in Regulatory Science rule.

The SAB comments are available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebBOARD/41042C652229CA398525848500595458/$File/EPA-SAB-19-005.pdf.

The SAB also provided comments on the entire April 2018 proposed rule. The EPA received those comments on December 31, 2019, and will consider them as we develop the final rule.

4. Will you commit to working with the National Academies of Sciences on the development of the proposed Strengthening Transparency in Regulatory Science rule? Will you commit to providing EPA funds for the NAS to conduct a review of the proposed rule?

   EPA Response: The EPA does not plan to work with the National Academy of Sciences (NAS) in developing this proposed rule. However, the EPA has drawn upon many sources, including existing NAS reports to inform our thinking about certain elements of a supplemental proposed rule.

5. Will you commit to requiring at least a 90-day public comment period for the Strengthening Transparency in Regulatory Science supplemental rule?

   EPA Response: The EPA is committed to ensuring adequate time for public review and comment of the supplemental rule.

6. As currently published in the Federal Register, does the proposed rule retroactively apply to any existing EPA regulations and standards? Will the supplemental rule contain any provision for the retroactive application of the rule to existing EPA regulations and standards? If yes, please outline the consequences of retroactive application.

   EPA Response: As published in the Federal Register, the April 2018 proposed rule is intended to apply prospectively to final regulations that are determined to be "significant regulatory actions" pursuant to Executive Order 12866. The EPA intends to issue a supplemental proposal that would propose clarifications, modifications, and additions to certain provisions in the April 30, 2018, proposed rulemaking.

7. The Portland Harbor Superfund Site in my home state of Oregon was added to EPA's National Priorities List in December 2000. In response to a question for the record for your confirmation hearing before the Senate Committee on Environment and Public Works, you stated that the "Portland Harbor Superfund site remains a priority for EPA and continues to be included on the Administrator's emphasis list of priority Superfund sites" and the "Agency remains committed to providing the resources needed to work with potentially responsible parties to ensure the remedial designs and remedial actions are implemented at this site." Please provide specific details about how the EPA is prioritizing the cleanup at Portland Harbor.

EPA Response: The Portland Harbor site remains on the Administrator's Emphasis List, and EPA senior officials from the Office of Land and Emergency Management and the Office of Enforcement and Compliance Assurance are actively engaged in advancing progress at this site. EPA senior officials have met with stakeholders (Potentially Responsible Parties, state and local governments, community members, and tribes) in Portland to reinforce the EPA's commitment to move cleanup forward. To date, the EPA has entered into an agreement with the City of Portland and State of Oregon to provide incentives for parties to perform remedial design. In addition, the EPA has completed agreements for remedial design in three of the site's subareas and the EPA is in negotiations for design in additional subareas, with the goal of completing agreements with responsible parties that achieve 100% remedial design of the cleanup.

8. In June 2019, Sheryl Bilbrey left the EPA, and in early July, David Allnutt began serving as Acting Director for the Superfund and Emergency Management Division for Region 10. How has this staff change affected progress on the Portland Harbor Superfund Site? Does the EPA intend to hire senior level staff to work in the Region 10 Portland, Oregon office to manage the site for the Agency?

   EPA Response: The change in Division Director at the regional level has no impact on the progress at the Portland Harbor site. The EPA continues to meet deadlines set forth in existing agreements with performing parties. EPA Region 10 is in the process of hiring a permanent Division Director for the Superfund and Emergency Management Division. Additionally, the Region has hired two remedial project managers (RPM) and is in the process of recruiting one more RPM and a team leader—all to be based at EPA's Portland Operations Office.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Ms. Mikie Sherrill.

1. Administrator Wheeler, the SST Committee held a hearing on the IRIS chemical assessment program back in March. We are extremely concerned that the political officials in the Office of Research and Development eliminated half of the IRIS workflow in December of last year. Chairwoman Johnson sent a joint letter with Senators on March 4, requesting documentation about this Administration's decision-making process to eliminate chemicals from the IRIS workflow.

    a. Are you aware of the March 4 request?

    EPA Response: Yes, as you are aware, the Agency has provided the Committee multiple responses to your March 4, 2019 letter, in addition to the Committee's April 3, 2019 and July 18, 2019 letters. As you are aware, on March 13, 2019, shortly after receiving the March 4th letter, the Agency provided the Committee with a briefing on the reorganization of the Office of Research and Development (ORD) by ORD Principal Deputy Assistant Administrator for Research and Development and Science Advisor Jennifer Orme-Zavaleta and other EPA staff. This briefing included a discussion about the impacts of the reorganization on the IRIS program. Additionally, the EPA provided Principal Deputy Assistant Administrator Orme-Zavaleta to testify at a hearing on the IRIS program on March 27, 2019, before the Committee's Subcommittee on Oversight and Investigations and Subcommittee on Environment. At the hearing, Principal Deputy Assistant Administrator Orme-Zavaleta answered questions for an extensive amount of time on issues directly presented in the Committee's March 4th letter and articulated the decision-making process behind the IRIS assessment prioritization, which the Committee further inquired about in the April 3rd letter. The Agency also provided the Committee with a briefing on the fiscal year (FY) 2020 ORD budget on April 2, 2019, which included extensive discussion regarding the funding and future of the IRIS program.

    On July 19, 2019, the EPA provided a response to the Committee's March 4, 2019 letter detailing in length the Agency's prioritization process for the IRIS program and the shift of formaldehyde to be assessed by the TSCA program within the EPA's Office of Chemical Safety and Pollution Prevention (OCSPP). With this response, the Agency provided over 159 pages detailing an overview of the recent updates and work on the IRIS program and also two memos from ORD Principal Deputy Assistant Administrator for Research and Development and Science Advisor Jennifer Orme-Zavaleta—one dated August 10th which was soliciting requests for IRIS

assessment prioritization, and another dated December 4th which provided the updated priorities for IRIS assessments after the prioritization process. Since this initial July 19th response, the Agency has sent three additional letters on August 2nd, August 16th, and August 30th along with enclosures containing, in total, 2,543 pages of responsive documents.

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Along with the documents included in the productions that the Agency has provided to date, Dr. Orme-Zavaleta testified before the Committee on March 27, 2019, and answered questions for an extensive amount of time on issues directly presented in the Committee's March 4, 2019 letter and articulated the decision-making process behind the IRIS assessment prioritization.

Specifically, in a July 18, 2019, letter to the Agency, Chairwoman Johnson requested internal Agency documents relating to the EPA's process for identifying Integrated Risk Information System (IRIS) program priorities. As the Agency has previously explained to the Committee, the EPA has determined that those documents are confidential, deliberative, and should not be released. The Agency provided the Committee a document from the Office of Children's Health Protection (OCHP) on November 19, 2019.

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Practically the only thing we've learned from this document production is just how important the industry perspective is to EPA when it comes to chemicals and human health.

b. Will you commit to share the other materials in EPA's possession that speak directly to our March 4 inquiry?

EPA Response: On July 19, 2019, the EPA provided a response to the Committee detailing in length the Agency's prioritization process for the IRIS program and the shift of formaldehyde to be assessed by the TSCA program within the EPA's Office of Chemical Safety and Pollution Prevention (OCSPP). With this response, the Agency provided over 159 pages detailing an overview of the recent updates and work on the IRIS program and also two memos from ORD Principal Deputy Assistant Administrator for Research and Development and Science Advisor Jennifer Orme-Zavaleta—one dated August 10th which was soliciting requests for IRIS assessment prioritization, and another dated December 4th which provided the updated priorities for IRIS assessments after the prioritization process. Since this initial July 19th response, the Agency has sent three additional letters on August 2nd, August 16th, and August 30th along with enclosures containing, in total, 2,543 pages of responsive documents.

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Specifically, in a July 18, 2019, letter to the Agency, Chairwoman Johnson requested internal Agency documents relating to the EPA's process for identifying Integrated Risk Information System (IRIS) program priorities. As the Agency has previously explained to the Committee, the EPA has determined that those documents are confidential, deliberative, and should not be released. The Agency provided the Committee a document from the Office of Children's Health Protection (OCHP) on November 19, 2019.

The EPA has been transparent in our production of documents and information to the Committee in the issues raised in letters, questions during testimony, and numerous conversations with Committee staff. To accuse the Agency of acting otherwise is completely false.

2. EPA's representative told the SST Committee in March that the Office of Childrens' Health had listed formaldehyde as a priority chemical for IRIS review. The National Cancer Institute has found a relationship between formaldehyde exposure and cancer. So presumably OCHP wanted to

understand that risk better. But your Agency has refused so far to share OCHP's written priorities for the IRIS program with this Committee.

a. Can you commit to sharing that information with the Committee?

EPA Response: In a July 18, 2019, letter to the Agency, Chairwoman Johnson requested internal Agency documents relating to the EPA's process for identifying Integrated Risk Information System (IRIS) program priorities. As the Agency has previously explained to the Committee, the EPA has determined that those documents are confidential, deliberative, and should not be released. The Agency provided the Committee a document from the Office of Children's Health Protection (OCHP) on November 19, 2019.

The EPA has been transparent in our production of documents and information to the Committee in the issues raised in letters, questions during testimony, and numerous conversations with Committee staff. To accuse the Agency of acting otherwise is completely false.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Sean Casten

1. Mr. Wheeler, as you know, the 2007 RFS expanded the 2005 mandate and added a carbon standard for biofuels requiring conventional biofuels to reduce carbon by 20% compared to gasoline and advanced biofuels to be 50% better than petroleum. It was the first program to impose a carbon reduction standard on liquid petroleum fuels. Since that time, the extraction and refining of gasoline have become significantly more carbon intensive as fracking and deep-water drilling have expanded U.S. petroleum production in the U.S. In contrast, biofuels have become significantly less carbon intensive as production technology and feedstock yields have improved. Moreover, issues that in 2007, like indirect land use are far better understood and suggest biofuels have an even better carbon footprint than EPA first concluded. Unfortunately, EPA has not updated its carbon scoring for either biofuels or petroleum

   a. Will you commit to completing an updated analysis of the carbon scoring for both petroleum and biofuels, including an updated assessment of the indirect land use attributable to these fuels?

      EPA Response: We appreciate your input on the importance of lifecycle greenhouse gas (GHG) assessment and using the best available science. We intend to update our analysis at the appropriate time, but given the many other Renewable Fuel Standard (RFS) program priorities in front of us, no decisions have been made on the timing to revisit our lifecycle analysis.

   b. USDA has conducted extensive analysis of the carbon footprint for feedstock production and biofuels processing. Their most recent analysis concludes conventional biofuels such as the corn ethanol produced in Iowa today are about 43% better than gasoline. Will you commit to having EPA incorporate USDA's analysis into your Agency's updated analysis?

      EPA Response: We continue to monitor the science regarding lifecycle GHG emissions associated with biofuels. As we do lifecycle assessments for new fuel pathways, the most recent science and data that are consistent with the statutory provisions that govern the EPA's lifecycle assessments are incorporated where possible. For example, our facility-specific petition approvals have incorporated advances in biofuel production as plants are able to demonstrate efficiency improvements.

c. EPA also completed a carbon assessment of Brazilian produced ethanol from sugar cane. That analysis assumed the end of burning cane before harvest and did not account for any destruction in the Amazon. With the Amazon on fire today and Brazil resuming rain forest destruction to accommodate expanded agriculture, will you commit to accounting for the real environmental impact of Brazil's sugar and ethanol industries and the affect on carbon caused by the fires in the Amazon today?

EPA Response: The EPA's analysis in 2010 of sugarcane ethanol projected that 10 percent of Brazilian sugarcane area would use burning prior to harvest in 2022 and also projected deforestation in the Amazon region of Brazil. This analysis was based on the data available and the laws in place at that time. The EPA intends to update our analysis at the appropriate time, but given the many other RFS priorities in front of us, no decisions have been made on the timing to revisit our lifecycle analysis.

Last month, EPA stated very forcefully that there is "no evidence" of small refinery exemptions hurting biofuel producers or farmers. Since EPA said that, we've had another ethanol plant close in Iowa, and countless others across the country are reeling from reduced domestic demand because EPA is gaming the RFS to the benefit of large oil companies. In fact, just last week, USDA confirmed our fears of reduced demand by reducing their projections on how much corn will be used for ethanol yet again.

d. Mr. Wheeler, farmers, ethanol producers, and biodiesel producers are reeling from the EPA's mismanagement of the RFS program. They are losing their livelihoods. But yet EPA somehow thinks this situation is ok. Can you explain how you plan to fix this problem?

EPA Response: On October 28, 2019, the EPA published a supplemental proposed rulemaking, and on December 19, 2019, I signed the 2020 RFS Annual final rule. This rule finalized changes to the calculation of applicable percentage standards under the RFS program to account for projected small refinery exemptions. The final rule adds a projection of the aggregate amount of exempted volumes resulting from 2020 small refinery exemptions into the percentage standards calculation, effectively reallocating anticipated exempted volumes to other obligated parties.

e. How does the Environmental Protection Agency's approval process for small refinery exemption waivers operate?

EPA Response: After receiving a Small Refinery Exemption (SRE) petition, the EPA makes a threshold determination on whether the refinery is eligible to petition for an exemption under the statute and the EPA regulation. If the EPA determines that the refinery is eligible, the EPA then refers the petition to the Department of Energy (DOE) for review. DOE then provides the EPA with a finding as to whether a refinery merits exemption and, if so, what level of exemption. The DOE finding of no exemption, 50 percent exemption, or full exemption are based on the application of a scoring matrix. This matrix quantifies specific factors that DOE has determined may indicate disproportionate economic hardship. Next, DOE provides the EPA the completed matrix for each facility, along with DOE's finding.

The EPA then issues its decision consistent with the statute, regulations, and subsequent Congressional direction. Beginning with 2019 SRE petitions and including 2020 SRE petitions and beyond, the EPA intends to follow the DOE findings.

f. What is the role of the Department of Energy in reviewing and scoring waiver applications?

EPA Response: As directed by the statute, the EPA has implemented the small refinery exemption provisions of CAA section 211(o)(9) working in close consultation with the U.S. Department of Energy. The Department of Energy conducts a review of the petition and supporting information and makes a finding of whether the petitioning small refinery should receive an exemption, and if so the amount of relief (i.e., 50% or 100%) the petitioning small refinery should receive.

g. What factors are being considered in the assessment and approval of these applications and whether changes have been made to the review process under the current Administration?

EPA Response: On October 28, 2019, the EPA published a supplemental proposed rulemaking, and on December 19, 2019, I signed the 2020 RFS Annual final rule. This rule finalized changes to the calculation of applicable percentage standards under the RFS program to account for projected small refinery exemptions. The final rule adds a projection of the aggregate amount of exempted volumes resulting from 2020 small refinery exemptions into the percentage standards calculation, effectively reallocating anticipated exempted volumes to other obligated parties. In the 2020 RFS Annual final rule, the EPA stated that it intends to follow the DOE findings, including granting partial (i.e., 50 percent) relief, where appropriate when evaluating small refinery exemptions petitions going forward, including in 2019 and 2020. In a previously-issued supplemental notice of proposed rulemaking associated with the 2020 RFS Annual rule, the EPA described and requested comment on certain factors it will apply in evaluating small refinery exemption petitions (https://www.govinfo.gov/content/pkg/FR-2019-10-28/pdf/2019-23379.pdf). The EPA considered and responded to those comments in the final rule.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Ms. Katie Hill

1. Most of my constituents live in the South Coast Air Quality Management District. My district is north of Los Angeles for better reference. We have some significant air quality problems with ozone and particulate matter. Between the traffic and the topography, it's an enormous challenge. We're working hard to innovate our way out of noncompliance, and I want to make sure my counties are armed with every possible tool to do that. We also want to make sure that EPA's health standards for these pollutants are informed by the best possible scientific process.

   But I have serious concerns about how the outside scientific advisory process is being accommodated in EPA's most recent efforts to update standards for ozone and PM. This Committee sent you a letter on Monday asking for more information, but I want to spend some time today.

   a. You disbanded the integrated review subpanel for the Clean Air Scientific Advisory Committee on particulate matter in October 2018. The Members of this panel, before you dismissed them, were employed as Special Government Employees and held to explicit ethics agreements, including financial disclosures, ethics training, and limitations on personal conduct while serving. Last week you announced a "pool of consultants" to replace the formal integrated review panel.

      i. Will members of the pool of consultants be held to the same ethics rules as the Members of the formal integrated review panel were?

      EPA Response: All members of the pool of consultants were hired as Special Government Employees (SGEs). As such, they were held to and vetted for the same ethics rules as are all Federal Advisory Committee (FAC) members.

      In May 2018, the EPA issued a memorandum outlining a "Back-to-Basics" process for NAAQS under the Clean Air Act (CAA). This memo ensures that the EPA and its independent science advisors follow a transparent, timely, and efficient process in reviewing and revising public health- and welfare-based NAAQS. Consistent with the memo and with the statutory mandate that the EPA review each NAAQS every five years, the EPA intends to finalize any necessary revisions to the ozone and particulate matter NAAQS by the end of 2020.

Best available science must be the foundation upon which all the EPA's regulatory and policy decisions are based. Independent reviews, such as the CASAC's reviews during the NAAQS standard-setting process, ensure that the Agency uses the best available science to fulfill our mission to protect human health and the environment. It is important to remember that the CAA envisions a continual NAAQS review. As soon as one five-year review ends, the next five-year review begins. The Agency is committed to constantly reviewing the latest science for each NAAQS review.

As Administrator, I directed EPA staff to complete the review of the particulate matter (PM) NAAQS by the end of 2020 and to continue progress on the review of the ground-level ozone NAAQS so that public review of the Integrated Science Assessment (ISA) and Policy Assessment (PA) can conclude by the end of 2019. The EPA welcomes feedback during all stages of these reviews from members of the scientific community and public, and has received feedback from a number of outside experts during recent public meetings and teleconferences.

During my recent testimony before the Committee, I reaffirmed the Agency's intention of finalizing both reviews by the end of next year. As I detailed during the hearing, for ozone, this will be the first time that the Agency has completed the review within the statutory five-year requirement. The EPA has previously and consistently taken longer than the statutory five-year requirement to do so. The Agency is now committed to completing the reviews within the statutory timeframe of five years, as is required by the CAA. Despite the repeated claims and criticism that the Agency is proceeding with the reviews at a pace that is too fast, it is important to note that Congress, through the CAA, has required the Agency to complete the reviews and provide updates every five years. My direction is not an "accelerated" timeline; it is the legal timeline.

Additionally, one aspect that continues to be ignored by critics of the Agency is that once the Agency is finished with a five-year review, the next five-year review starts the very next day. It is the intention of the Agency to complete the review on time, and then start the next five-year review the day after—allowing for the review process to satisfy the requirements set by Congress, while also ensuring that the Agency uses the best available science.

To help ensure that the EPA complies with the statutory five-year requirement, I further directed staff to create a pool of expert consultants that the seven-person chartered CASAC, through the Chair, can draw from as needed to support the PM and ozone reviews. On September 13, 2019, I announced the selection of this pool of non-member subject matter experts, whose feedback will help the chartered CASAC as it provides advice to the Administrator in a manner consistent with the CAA and the Federal Advisory Committee Act (FACA). Relying on these consultants, instead of the previous panel arrangement, will help align the Agency's work with the CAA's five-year review schedule, while also ensuring that the standards are based on the best available science. These subject matter experts provide additional expertise in

response to CASAC's request for additional expertise in its April 11, 2019 letter to me.

The process for selecting members for the SAB is described in the *Implementation Plan for the New Structural Organization of the EPA Science Advisory Board (SAB): A Report of the EPA Science Advisory Board Staff Office (EPA-SAB-04-002)*. The selection of members for the CASAC follows a similar process. The SAB Staff Office reviews qualifications of nominees to assess whether they have the scientific education, training, and experience to evaluate basic and applied science issues addressed by the advisory committees. The SAB Staff Office looks for nominees who have distinguished themselves professionally and who will be available to invest the time and effort in providing advice and recommendations to the EPA. The SAB Staff Office consults with the Agency and current members of the SAB and the CASAC in this process.

This pool of consultants was selected by the Administrator from the nominations provided by the public's response to an August 7, 2019 Federal Register Notice soliciting nominations. Members of the public and CASAC had the opportunity to submit nominations of candidates for the pool of consultants. The EPA followed up with the nominees to determine their interest in being candidates and to collect information on their qualifications (curriculum vitae/resumes, biographical sketches, and EPA 3110-48 Confidential Financial Disclosure Forms). A list of interested and qualified candidates with summaries of their qualifications were provided to senior leadership for selection.

The Federal Advisory Committee Act (FACA) requires that non-member consultants be hired either as SGEs or through contracts. Consistent with FACA requirements, the EPA hired the pool of consultants as SGEs. As SGEs, the pool of non-member consultants are governed by the same ethics requirements as other SGEs serving on EPA FACs, such as the Chartered CASAC, which include submission of EPA 3110-48 Financial Disclosure Forms and review by Agency ethics officials.

ii. Was Dr. Tony Cox, chair of CASAC, consulted in advance on who should be named to the pool of the consultants?

EPA Response: The public, including Dr. Cox and all the other CASAC members, had an opportunity to nominate potential candidates for the pool of consultants. However, Dr. Cox was not involved in the decisions regarding who made up the pool of consultants.

The process for selecting members for the SAB is described in the *Implementation Plan for the New Structural Organization of the EPA Science Advisory Board (SAB): A Report of the EPA Science Advisory Board Staff Office (EPA-SAB-04-002)*. The selection of members for the CASAC follows a similar process. The SAB Staff Office reviews qualifications of nominees to assess whether they have the scientific education, training, and experience to evaluate basic and applied science issues

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iii. Were other members of the chartered CASAC consulted on appointments to the pool of consultants?

EPA Response: The public, including Dr. Cox and all the other CASAC members, had an opportunity to nominate potential candidates for the pool of consultants. However, no CASAC members were involved in the decisions regarding who made up the pool of consultants.

The process for selecting members for the SAB is described in the *Implementation Plan for the New Structural Organization of the EPA Science Advisory Board (SAB): A Report of the EPA Science Advisory Board Staff Office (EPA-SAB-04-002)*. The selection of members for the CASAC follows a similar process. The SAB Staff Office reviews qualifications of nominees to assess whether they have the scientific education, training, and experience to evaluate basic and applied science issues addressed by the advisory committees. The SAB Staff Office looks for nominees who have distinguished themselves professionally and who will be available to invest the time and effort in providing advice and recommendations to the EPA. The SAB Staff Office consults with the Agency and current members of the SAB and the CASAC in this process.

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b. As of July 12, 2019, the Director of the Scientific Advisory Board Staff Office indicated that your office had not involved him or his staff in your anticipated response to CASAC's April 11 request for the reinstitution of the PM panel.

   i. Did you consult with the SAB Staff Office in your decision to establish the pool of consultants?

      EPA Response: The Science Advisory Board Staff Office was engaged in the process of calling for and receiving nominations of potential pool of consultant members. The SABSO also collected key information on the nominees and conducting an ethics review for these candidates. However, the decisions on who will serve on the expert pool of consultants was made by the Administrator.

      The process for selecting members for the SAB is described in the *Implementation Plan for the New Structural Organization of the EPA Science Advisory Board (SAB): A Report of the EPA Science Advisory Board Staff Office (EPA-SAB-04-002)*. The selection of members for the CASAC follows a similar process. The SAB Staff Office reviews qualifications of nominees to assess whether they have the scientific education, training, and experience to evaluate basic and applied science issues addressed by the advisory committees. The SAB Staff Office looks for nominees who have distinguished themselves professionally and who will be available to invest the time and effort in providing advice and recommendations to the EPA. The SAB Staff Office consults with the Agency and current members of the SAB and the CASAC in this process.

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   ii. Was the SAB Staff Office involved in vetting appointments to the pool of consultants, as they would be for an official subpanel?

      EPA Response: Yes, the Science Advisory Board Staff Office was fully engaged on vetting all nominees for this pool of consultants.

      The process for selecting members for the SAB is described in the *Implementation Plan for the New Structural Organization of the EPA Science Advisory Board (SAB): A Report of the EPA Science Advisory Board Staff Office (EPA-SAB-04-002)*. The selection of members for the CASAC follows a similar process. The SAB Staff Office reviews qualifications of nominees to assess whether they have the scientific

education, training, and experience to evaluate basic and applied science issues addressed by the advisory committees. The SAB Staff Office looks for nominees who have distinguished themselves professionally and who will be available to invest the time and effort in providing advice and recommendations to the EPA. The SAB Staff Office consults with the Agency and current members of the SAB and the CASAC in this process.

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The Federal Advisory Committee Act (FACA) requires that non-member consultants be hired either as Special Government Employees (SGEs) or through contracts. Consistent with FACA requirements, the EPA hired the pool of consultants as SGEs. As SGEs, the pool of non-member consultants are governed by the same ethics requirements as other SGEs serving on EPA Federal Advisory Committees (FACs), such as the Chartered CASAC, which include submission of EPA 3110-48 Financial Disclosure Forms and review by Agency ethics officials.

2. Lastly, how will the EPA be quantifying the pollution impact of vehicles that will be only required to achieve 37 mpg efficiency versus the previously required 51 mpg efficiency under Californian regulations?

EPA Response: In the Safer Affordable Fuel Efficient (SAFE) Vehicles proposed rulemaking, the EPA and the National Highway Traffic Safety Administration (NHTSA) quantified the environmental impacts of the proposed standards as well as a wide range of alternatives for which the agencies sought comment. The agencies will update the environmental impacts analysis for the final rulemaking including a full assessment of greenhouse gas emissions for CO_2, CH_4, and N_2O and criteria pollutants such as NOx, VOCs, and PM. In addition to a full accounting of changes in vehicle emissions, the agencies will also provide an assessment of health-related impacts from both changes in tailpipe and upstream emissions. The health-related assessment will include premature deaths and respiratory symptoms and other air quality effects. SAFE Vehicles Proposed Rule Sections VII D and E (83 FR 43324-43350, August 24, 2018).

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Randy Weber

1. The Lautenberg Chemical Safety Act amended TSCA to require EPA to use the weight of the scientific evidence and best available science when conducting risk evaluations of existing substances. In implementing these provisions, do you agree that scientific evidence, namely a thorough evaluation of cause and effect on how chemicals act to induce toxicity, should take precedence over assumptions and defaults?

   EPA Response: The Toxic Substances Control Act (TSCA) requires the EPA to use the "best available science" and "weight of scientific evidence" in our existing chemical risk evaluations. These terms were defined in the Agency's risk evaluation rule using a combination of previously accepted definitions, Congressional record, and language taken directly from TSCA. In practice, what this means for the implementation of TSCA is a process that utilizes systematic review in a fit-for-purpose manner that identifies and evaluates each stream of scientific evidence, its strengths, limitations, and relevance, so as to integrate evidence as necessary and appropriate. This results in a product where in some instances empirical data are most appropriate and in other instances modelled data are most appropriate. Use of many types of data in risk assessment involves making assumptions.

   As needed, the Office of Pollution Prevention and Toxics (OPPT), within the EPA's Office of Chemical Safety and Pollution Prevention (OCSPP), updates its models, assumptions, and defaults so that they reflect the current state of knowledge and are as representative as possible of the scenarios and conditions being modeled. Consistent with its mission, EPA risk assessments tend towards protecting public and environmental health by preferring an approach that does not underestimate risk in the face of uncertainty and variability (see EPA staff paper on risk assessment https://semspub.epa.gov/work/10/500006305.pdf; section 2.1.2). The EPA seeks to adequately protect public and environmental health by ensuring that risk is not likely to be underestimated.

   a. Given the focus on ensuring decisions use the "best available science," what current scientific developments hold the greatest promise for delivering successful chemical assessments in the future?

      EPA Response: The EPA plans to continue delivering chemical assessments and is working to make them even better. Systematic review and New Approach Methodologies (NAMs) are

two areas of development that the EPA has been heavily invested in, which will enhance chemical assessments.

The EPA has adopted systematic review, a method of conducting a standardized literature-based assessment and quality review known for the transparency and rigor it brings to the process. Systematic review methods provide clarity on the strategies used to search and select literature, structure for objectively evaluating the strengths and weaknesses of individual studies, structured frameworks to guide integrative weight-of-evidence evaluation, and clearer rationale for selecting the studies that are advanced for consideration in calculating toxicity values. The EPA's TSCA program is using systematic review in the existing chemical assessments to facilitate transparency and consistency across the risk evaluations. The use of systematic review across all risk evaluations ensures the use of best available science in the risk evaluations, thus upholding this statutory requirement. All risk evaluations must be peer reviewed and the EPA has requested comment from the peer reviewers on the systematic review process. Additionally, the EPA has contracted with the National Academies of Science to review and provide advice on further enhancing the systematic review approaches used in the TSCA risk evaluations.

Scientific advancements exist today that allow us to better predict potential hazards for risk assessment purposes without the use of traditional methods that rely on animal testing. These new approach methods or NAMs, include any technologies, methodologies, approaches, or combinations thereof that can be used to provide information on chemical hazard and potential human exposure that can avoid or significantly reduce the use of testing on animals. The benefits of NAMs are extensive, not only allowing us to decrease animals used while potentially evaluating more chemicals across a broader range of potential biological effects, but in a shorter timeframe with fewer resources, while often achieving equal or greater biological predictivity than current animal models. The EPA is committed to avoiding unnecessary animal testing throughout the Agency and remains focused on promoting the development and implementation of NAMs of equivalent or better scientific quality and relevance for assessing risks to health and the environment of chemical substances. On September 10, 2019, I signed a Directive to prioritize the EPA's efforts to reduce animal testing including reducing mammal study requests and funding 30 percent by 2025 and eliminating them by 2035 (https://www.epa.gov/research/administrator-memo-prioritizing-efforts-reduce-animal-testing-september-10-2019). The EPA has already made substantial progress and is an international leader in advancing NAMs for filling information gaps and integrating innovative methods into chemical risk assessment. Moving forward, the EPA plans to continue being a leader in the collective objective of identifying timely and cost-efficient ways to advance our knowledge of potential hazards and exposures from chemicals in the environment for the purposes of informing regulatory decisions.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Andy Biggs

1. At the beginning of this Congress, I reintroduced the Improving Science in Chemical Assessments Act (H.R. 89). This legislation would give the relevant program offices within EPA the primary authority to carry out hazard identification for chemical assessments. Under the existing process within EPA's Integrated Risk Information System, or IRIS, chemical assessments can take up to ten years or more to complete and are often not needed or irrelevant by the time they are finally finished. Administrator Wheeler, when IRIS fails to meet its deadlines for completing an assessment in a timely manner, how is the program held accountable?

   EPA Response: Because EPA's Integrated Risk Information System (IRIS) assessments play a critical role in supporting Agency decisions and can involve a significant expenditure of time and resources, in August 2018, the EPA established a more formal, structured process for identifying IRIS program priorities. This process included a requirement that all IRIS program priorities be approved by the EPA program office's Assistant Administrator. This initial formalized prioritization process was completed in December 2018, and it is bringing further stability and responsiveness to the IRIS program. Through this new process, EPA programs and regions can formally identify what assessments constitute a priority program need, why an assessment is needed, and when the assessment is needed. Not only does this improve the scope of IRIS assessments and help the IRIS program prioritize its activities, it also reinforces accountability between the requesting program and the IRIS program as it pertains to requested assessments to ensure the efficient use of resources.

2. The most recent GAO report on the IRIS program calls for EPA to develop an action plan that, among other reforms, places primary responsibility for chemical assessments in the relevant program offices—similar, in many ways, to what I have called for in H.R. 89. You and the rest of EPA leadership have been criticized for beginning to work on such an action plan by those who would like to retain the more centralized framework, thereby placing you in a difficult position. What do you see as some of your largest challenges in reforming IRIS going forward, and how best do you believe such challenges can be overcome? On a related note: do you expect useful GAO feedback going forward?

   EPA Response: The IRIS program is operated from the EPA's Office of Research and Development (ORD), and both the IRIS program and ORD are dedicated to supporting other Agency, Regional, state, and tribal programs, such as water, air, chemicals, land, and pesticides programs. ORD

scientists routinely collaborate with colleagues in other Agency programs, thereby leveraging ORD's scientific expertise and allowing the EPA to use the best available science in its decision making. Over the course of its existence, the IRIS program has routinely received input and review from a number of external analyses and organizations. In 2011 and 2014, the National Academy of Sciences (NAS) issued reports outlining recommendations to improve the IRIS program by adopting systematic review, a method of conducting a standardized literature-based assessment and quality review known for the transparency and rigor it brings to the process. Additionally, Congress has recognized problems within the IRIS program and weighed in with specific direction on how the EPA should work with NAS. In fiscal year 2017, Congress passed legislation which directed the EPA to contract with NAS to review whether NAS's recommendations were being implemented. In April 2018, the NAS issued a consensus report on the progress of the IRIS program. In its overall conclusions, the NAS committee reported, "The committee is encouraged by the steps that the EPA has taken, which have accelerated during the last year under new leadership. It is clear that the EPA has been responsive and has made substantial progress in implementing National Academies recommendations."

The Government Accountability Office (GAO) has also provided input to improve the IRIS program. This input from Congress included suggestions to address timeliness, improve transparency, and address process challenges. In its recent audit report, GAO found that the IRIS program has made improvements and has demonstrated the impact of the corrective actions on IRIS workflow, productivity, and impact.

In the wake of that input and internal program audits, the IRIS program has modernized its process and workflows by incorporating project and program management to better manage staff and resource commitments. In addition, it has moved away from one-size-fits-all assessments to a mixed portfolio of chemical evaluation products. It has also optimized the use of a variety of specialized systematic review software tools to increase efficiency and promote greater transparency by making the underlying assessment information more accessible to the public. These are significant improvements that have helped address GAO's input regarding the timeliness, transparency, and process of IRIS assessments.

Additionally, in August 2018, the EPA established a more formal, structured process for identifying IRIS program priorities. This process included a requirement that all IRIS program priorities be approved by the EPA program office's Assistant Administrator. This initial formalized prioritization process was completed in December 2018, and it is bringing further stability and responsiveness to the IRIS program. The second formal solicitation for IRIS assessments was announced on September 9, 2019 with a respond-by date of October 18, 2019. Through this new process, EPA programs and regions can formally identify what assessments are a priority program need, why the assessment is needed, and when the assessment is needed.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Roger Marshall

Under the Coordinated Framework for the Regulation of Biotechnology, the Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency have regulatory authority over the products of plant biotechnology. EPA's regulatory authority falls under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and is specific to "plant incorporated protectants," or "PIPs." If a plant incorporated protectant is produced by a plant, EPA's Office of Pesticide Policy regulates the pesticide substance and related genetic material for human and environmental safety.

Since it published its proposed rule in 1994, EPA has consistently stated that its intent is to focus its regulatory efforts on those defense mechanisms that are new to plants and that act directly on the target pest through a toxic mechanism of action. In the 2001 final rule on PIPS, EPA again stated its intent to focus on those PIPS that are isolated from novel sources and may present novel, unknown and/or unfamiliar toxicological profiles. (66 Fed. Reg. 37782-83).

Furthermore, EPA has recognized the safety record of plant breeding in the United States and that plant breeders have provided a safe food supply and that they have standards of practice to maintain this safety record. Based on this safety record, EPA exempted PIPS derived through conventional breeding from sexually compatible plants (see 40 CFR 174.25).

Currently the U.S. government does not have consistent policies for oversight of products derived from new breeding techniques like gene editing. The White House recognized this issue and the potential that gene editing possesses in its June 2019 Executive Order on Modernizing the Regulatory Framework for Agricultural Biotechnology Products. The Executive Order calls for the three agencies with oversight of biotechnology to develop an action plan to engage with consumers to build public confidence in biotechnology in agriculture by December 11, 2019. This includes a review by all three agencies of their current authorities, regulation, and guidance.

New plant breeding methods, such as gene editing hold tremendous promise to improve the environment and bring new plant varieties to market. In my district, researchers at Kansas State University are using genome editing in their breeding program to breed varieties of wheat with added benefits, such as higher protein and lower gluten. However, if the three agencies that regulate new plant varieties — USDA, FDA, and EPA — do not take consistent approaches, researchers in Kansas will never be able to commercialize their research because the regulatory burden is overly burdensome.

1. The Executive Order on Biotechnology recognized this issue and called for the Environmental Protection Agency and others to streamline regulations to foster innovation. Can you please outline what EPA is intending to do to comply with the Executive Order and how you are working with USDA and FDA?

   EPA Response: As you note, the new plant breeding methods have the potential to provide significant agricultural and environmental benefits. The EPA recognizes that we have an important, critical role in the successful implementation of the *Executive Order on Modernizing the Regulatory Framework for Agricultural Biotechnology Products* (EO 13874). Several requirements of the EO have been key for the EPA, in particular that federal agencies should: 1) review regulatory applications for products of agricultural biotechnology in a timely and efficient manner; 2) make regulatory determinations based on risks associated with the product and its intended end use; and 3) use existing statutory authority, as appropriate, to exempt low-risk products of agricultural biotechnology from undue regulation.

   The EPA has been evaluating our current regulatory framework to determine if there are opportunities for streamlining current approaches to enable these important technologies to get to market efficiently and are now working on exemptions for plant incorporated protectants (PIPs) engineered using biotechnology that are indistinguishable from PIPs made using natural plant breeding. The EPA's proposed rule is under review at the Office of Management and Budget (OMB). As stated in the OMB's Fall 2019 Unified Agenda of Regulatory and Deregulatory Actions, "*EPA intends to propose updates to the existing exemptions from regulation under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA) for certain plant incorporated protectants (PIP) products to reflect newer technologies, i.e., the exemptions are from the requirements to obtain a pesticide registration under FIFRA and establish a tolerance or tolerance exemption for residues in or on food commodities under FFDCA. EPA regulations (40 CFR 174.3) define a PIP as a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for production of such a pesticidal substance. It also includes any inert ingredient contained in the plant or produce thereof. EPA currently regulates all PIPs except those exempted by regulation at 40 CFR 174.25 and 174.508.*" The EPA intends to issue the proposal in the second quarter of FY2020, followed by the final rule later in FY2020

   The Fall 2019 Unified Agenda also states, "*This action [exemption of certain PIPs from regulation under FIFRA and FFDCA] fulfills the requirement in section 4(b) of Executive Order 13874, entitled Modernizing the Regulatory Framework for Agricultural Biotechnology Products (84 FR 27899, June 14, 2019), which directs the EPA Administrator to use existing statutory authority, as appropriate, to exempt low-risk products of agricultural biotechnology from undue regulation to the extent consistent with law and the principles set forth in section 3 of the Executive order.*" "*These PIPs are formed when genetic material is transferred using bioengineering technology between plants that could otherwise transfer the genetic material by natural interbreeding.*"

   We have regular communication with U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA) regarding agricultural biotechnology and have been considering their work in the area of new plant breeding methods as we work to implement our initiatives. We will

also continue to be consistent with our science-based regulatory system that evaluates products based on human health and environmental safety and potential benefits and risks to the environment.

Additionally, in January 2020, the EPA, USDA, and FDA launched a unified website that provides information about the actions the federal government is taking to oversee the regulation of agricultural biotechnology products. This website fulfills the requirement in Section 5 of Executive Order 13874 which instructed agencies to establish a web-based platform. It ensures public confidence in the regulatory system while improving transparency and efficiency of the biotechnology regulatory system.

2. Following a meeting in the White House on August 19th, your agency said there was "no evidence" that small refinery exemptions are hurting biofuel producers. . When I talk to my ethanol producers and my farmers in Kansas, they don't say that at all. They say EPA's policy to provide seemingly blanket small refinery exemptions is dramatically hurting their businesses. And just last week, USDA again reduced their forecast for corn demand for ethanol because domestic demand is off due to small refinery exemptions.

   Mr. Wheeler, can you explain to me how EPA can so confidentially say there is "no evidence" of harm to my constituents when there clearly is?"

   EPA Response: According to information from the Energy Information Administration, total domestic ethanol production has increased in every single year between 2001 and 2018, with the exception of 2012, when much of the United States experienced drought conditions. There is no indication in this data that small refinery exemptions in the last several years had any adverse impact on domestic ethanol production. Ethanol consumption in the U.S. has remained slightly above 10 percent of total gasoline consumption since reaching this level in 2016. Because ethanol is currently cheaper than gasoline and has a high octane value when used in E10 blends, refiners currently blend 10 percent ethanol into nearly all gasoline and are expected to do so in the future even in the absence of the Renewable Fuel Standard (RFS) program.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Michael Cloud

1. When the Renewable Fuel Standard program was first enacted by the Energy Policy Act of 2005, it called for 28 billion gallons of total renewable fuel in 2019. The rule for this year is set only at 19.92 billion gallons. I understand that there is an issue with production of these renewable fuels, which is why we cannot meet the 28 billion gallons. Can you discuss these challenges in production in addition to other challenges that are preventing the U.S. from meeting the statutory requirement?

   EPA Response: The Energy Independence and Security Act of 2007 (EISA) established target volumes for four nested categories of renewable fuel: cellulosic biofuel; biomass-based diesel; advanced biofuel; and total renewable fuel. The cellulosic biofuel and biomass-based diesel volumes are part of the advanced biofuel category, and the total renewable fuel volume is comprised of the advanced biofuel category and conventional biofuel. The volume mandates for the four different categories in the statute rise at different rates over time. The biomass-based diesel volume rose steadily to 1 billion gallons in 2012. The conventional biofuel portion of the total renewable fuel volume rose steadily to 15 billion gallons by 2015 and then remained flat. Unfortunately, the technology to produce cellulosic biofuel has fallen well behind the pace projected in the statute. Even then, almost all of the cellulosic biofuel produced today is biogas, not the liquid cellulosic biofuels anticipated at the time EISA was passed. This shortfall in cellulosic biofuel volume is the reason why the total renewable fuel volume for 2019 is so far below the 28 billion gallons specified in the statute. The other categories implied in the statute (conventional biofuel and non-cellulosic advanced biofuel) are now being met.

2. I have spoken with industry representative who have expressed frustration over the reallocation provision of the Renewable Fuel Standard provision. I understand the need for waiving requirements for small refineries, but I don't think it's fair to force larger refineries to shoulder the additional waived renewable fuel volumes. Has the EPA explored alternatives to reallocation?

   EPA Response: In recent years, almost all small refinery exemptions (SREs) have been granted after the annual percentage standards were finalized, and thus the required annual renewable fuel volumes were effectively reduced by the later-issued SREs. On December 19, 2019, the Administrator signed a final rule which finalizes changes to the terms in the formula used to calculate the percentage standards that apply to obligated parties such that the EPA would make a projection to estimate the aggregate volume of gasoline and diesel fuel that will be exempted after

the annual percentage standards are finalized, effectively requiring the volumes to be met by non-exempt refineries. That is, the intent of the projection is to ensure that the renewable fuel volumes promulgated in the final rule are actually achieved. In the rulemaking, the EPA also considered and responded to comments suggesting the EPA address exempted small refinery volumes in other ways.

3. Celanese, a chemical based in Dallas, has talked to me about issues they have had with the IRIS program assessing Formaldehyde – a naturally occurring substance. Formaldehyde is used in the manufacturing of some of their products. The company has expressed concerns with my staff that the process by which substances are selected is unclear. When it comes to identifying substances based on "program office need," what do you mean by that and why is this the best approach for this program?

   EPA Response: Because the EPA's Integrated Risk Information System (IRIS) program assessments play a critical role in supporting Agency decisions and can involve a significant expenditure of time and resources, in August 2018, the EPA established a more formal, structured process for identifying IRIS program priorities. This process included a requirement that all IRIS program priorities be approved by the EPA program office's Assistant Administrator. This initial formalized prioritization process was completed in December 2018, and it is bringing further stability and responsiveness to the IRIS program. Through this new process, EPA programs and regions can formally identify what assessments constitute a priority program need, why an assessment is needed, and when the assessment is needed. Not only does this improve the scope of IRIS assessments and help the IRIS program prioritize its activities, it also reinforces accountability between the requesting program and the IRIS program.

4. As representative for Texas' 27th District, there are five ports in my district, the most significant one being the Port of Corpus Christi. The EPA has helped various ports with reducing emissions from the high amount of traffic that travels through ports. When it comes to setting emissions-reduction standards, I believe the federal government should partner with communities and the private sector to develop attainable goals. With that in mind, I am curious about the current status of the Port and Near-Port Collaboration pilot projects. Can you discuss how the EPA has worked with port communities and stakeholders to develop strategies for improving environmental outcomes?

   EPA Response: EPA's Near-port Community Capacity Building Project supports partnership building by equipping industry and community stakeholders with information, skills, and tools to effectively develop and implement collaborative actions leading to shared prosperity and better quality of life conditions.

   Three original locations were chosen to pilot the Near-port Community Capacity Building Toolkit (consisting of the Ports Primer for Communities (https://www.epa.gov/community-port-collaboration-and-capacity-building/ports-primer-introduction), the Community Action Roadmap (https://www.epa.gov/community-port-collaboration-and-capacity-building/draft-community-action-roadmap), and the Environmental Justice Primer for Ports (https://www.epa.gov/community-port-collaboration-and-capacity-building/draft-environmental-justice-primer-ports)): New Orleans, LA; Savannah, GA; and Seattle, WA. Providence, RI was later added as a fourth location.

During the pilots, the EPA delivered on-site technical assistance services to enhance environmental performance of ports and to improve environmental conditions for nearby communities. The four pilots have now concluded, although work continues by the port and communities to further environmental and other goals. As planned, content of the Near-port Community Capacity Building Toolkit was revised based on direct feedback from pilot project participants and experiential insights from testing in real world situations. The revised versions of these resource tools will be available on EPA's Ports Initiative website this fall. In addition, case studies and other tools chronicling the activities and outcomes from the pilots are being prepared for publication.

EPA Regional offices are planning activities with other near-port communities and ports, using the revised Toolkit.

5. In the EPA's Budget Plan for FY 2020, it highlights how one of its top priorities is cleaning and restoring Superfund sites. There are two of these sites in my district, and, like many others in our area of Texas, I want to see these restored. In 2017, the Superfund Task Force developed recommendations for the Superfund program, and the Budget Plan for 2020 acknowledged that the EPA had only implemented 43 percent of the recommendations. What is the time frame for implementing the remaining recommendations and what challenges are you facing in trying to do so?

EPA Response: The EPA has completed all of the Superfund Task Force recommendations and released the Superfund Task Force Final Report on September 9, 2019. In the report, the EPA identified performance metrics to impose accountability on the Agency in implementing lessons learned and to ensure integration of the work completed under the Task Force into the Superfund program. In FY 2020, the EPA will report on the status of the metrics and progress of integrating the work. The EPA will continually evaluate the metrics and their usefulness and consider adopting additional or different methods as appropriate. The EPA will also conduct a strategic and comprehensive portfolio review of every site remaining on the National Priorities List. This review will help EPA to better utilize best practices, tools and new technologies, and accelerate the cleanup and reuse of sites. The final report and metrics can be found on the Agency's website (https://www.epa.gov/superfund/superfund-task-force-recommendations-and-accomplishments).

6. In the FY 2020 budget request, the Trump Administration proposed a FY 2020 budget includes a 25 percent increase to the Water Infrastructure Finance and Innovation Act (WIFIA) program. This program, which is designed to help communities improve water quality by investing in water infrastructure, can create jobs and improve the environment. How could a program like this benefit a coastal district like mine?

EPA Response: The Water Infrastructure Finance and Innovation Act (WIFIA) program provides long-term, low-cost credit assistance for a wide variety of water, wastewater, and stormwater projects. In addition to typical infrastructure projects such as sewer rehabilitation, water pipe repair and replacement, and treatment facility upgrades, the WIFIA program can finance projects that enhance resiliency of existing water, wastewater, and stormwater infrastructure against extreme weather events. For example, in coastal areas, an eligible project may be reinforcing levees and berms around a drinking water treatment plant or elevating its electrical systems. The cost to communities for these types of investments can be mitigated by the significant savings provided by

the WIFIA program through its low, fixed interest rate, and flexible financial terms. The WIFIA program can provide terms typically not obtainable through other forms of public financing such as a customized repayment schedule, a 35-year repayment period, and a 5-year payment deferral.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Troy Balderson

1. Administrator Wheeler, I appreciated meeting with you last year, where we discussed a number of EPA issues like WOTUS, HABs, and what was then the proposed Affordable Clean Energy (ACE) rule. Recently, the EPA has finalized that rule, taking a major step forward in developing a responsible, predictable, and achievable plan to regulate emissions from existing power plants. Can you give this Committee an overview of how the EPA developed this rule, and what methods the Agency will use to help industry meet the standards set in the ACE rule?

   EPA Response: On Wednesday, June 19, 2019, the EPA issued the Affordable Clean Energy (ACE) rule, an effort to provide existing coal-fired electric utility generating units, or EGUs, with achievable and realistic standards for reducing greenhouse gas (GHG) emissions.

   This action was finalized in conjunction with two other related, but separate and distinct rulemakings: (1) the repeal of the Clean Power Plan (CPP); and (2) revised implementing regulations for ACE, ongoing emission guidelines, and all future emission guidelines for existing sources issued under the authority of Clean Air Act (CAA) section 111(d).

   ACE provides states with new emissions guidelines that will inform the states' development of plans that establish standards of performance for existing coal-fired EGUs within their jurisdiction to reduce carbon dioxide (CO2) emissions—consistent with EPA's role as defined in the CAA.

   a. What does the Agency estimate will be the environmental benefits of this rule when it is fully implemented?

      EPA Response: At the time of promulgation, the EPA projected that this rule would reduce emissions of carbon dioxide, mercury, as well as precursors for pollutants like fine particulate matter and ground-level ozone. In 2030, the ACE rule is projected to:

      - Reduce carbon dioxide (CO_2) emissions by 11 million short tons
      - Reduce sulfur dioxide (SO_2) emissions by 5,700 tons
      - Reduce nitrogen oxides (NOx) emissions by 7,100 tons
      - Reduce fine particulate matter ($PM_{2.5}$) emissions by 400 tons
      - Reduce mercury emissions by 59 pounds

The EPA also projected that the ACE rule would result in annual net benefits of $120 million to $730 million, including domestic climate benefits and health co-benefits.

b. From my own research, ACE seems to be a common-sense, middle ground approach that is rooted in encouraging the use of new technologies to improve efficiency and reduce emissions. How is this technology-driven approach different than past regulations on greenhouse gas emissions?

EPA Response: The final ACE rule properly establishes a "best system of emission reduction" (BSER) in line with the CAA and EPA's historical practice, returning the EPA to its core mission of environmental policy rather than energy policy and market-shaping. The BSER is the best technology or other measure that has been adequately demonstrated to address emissions performance for a specific industry or process (a "source category"). In determining the BSER, the EPA considers technical feasibility, cost, non-air quality health and environmental impacts, and energy requirements. The ACE rule recognizes that EPA's statutory role with regard to regulation of existing sources under CAA section 111 is to determine the BSER and identify degree of emission limitation achievable through application of the BSER, and that the states' role is to develop plans that establish unit-specific standards of performance for existing sources that reflect application of the BSER.

The EPA also considered and rejected other kinds of technologies. For example, the EPA determined that carbon capture and sequestration (CCS) is not the BSER based on a thorough analysis of cost and availability, but will allow states to authorize such projects in accordance with the ACE rule. Under the law, the BSER must be both technologically feasible and cost reasonable. Some commenters suggested that Internal Revenue Code (IRC) section 45Q tax credits for CCS make it more cost reasonable. However, those credits cannot be considered to offset the costs of CCS in many situations because they are limited in time and availability. There are also uncertainties with respect to implementation of the credits that can only be addressed through future guidance from the Internal Revenue Service. We also reject other types of emissions reductions technologies or measures like fuel switching. The EPA believes that requiring a plant to switch entirely from coal to gas is not a valid BSER.

2. Can you tell me about the varying steps that products must go through to achieve the multiple required certifications, and collaborative efforts that occur with new technologies before they can be installed?

EPA Response: There are no national-scale certification processes for new technologies for drinking water treatment. In general, components of drinking water systems (e.g. pipes, valves, storage tank materials) are commonly certified as safe for drinking water by the National Sanitation Foundation (NSF). NSF also develops standardized testing procedures for specific treatment components (e.g. ion exchange resins for perchlorate removal) that may be used in a commercial treatment system.

In order to advance drinking water technology, the EPA makes it a priority to collaborate with partners and stakeholders. The EPA continues to work with vendors, states, and academia in the

development of EPA's Drinking Water Treatability Database (https://www.epa.gov/water-research/drinking-water-treatability-database-tdb). The database is intended for use by water utilities, first responders, consultants, treatment process designers, and researchers. Information is available for over 70 regulated and unregulated contaminants and more than 30 treatment processes. The EPA is working to include cost models for different treatment technologies in the data base. Cost data are crucial, especially for small systems, in the technology selection process. The EPA also collaborates with non-federal partners through the Federal Technology Transfer Act (FTTA), through which businesses can license EPA's own patented technology and bring it to market. Through FTTA, businesses and non-federal organizations can also work cooperatively with the EPA to make improvements on existing EPA technologies to bring something new to market. More information on EPA's FTTA program is available at: https://www.epa.gov/ftta. The EPA's Small Business Innovation Research (SBIR) Program provides funding opportunities for the development of innovative water treatment processes and technologies.

a. Is EPA involved in any way in the certification processes or collaborative efforts in determining the viability of new drinking water technologies?

   EPA Response: The EPA does not certify new drinking water technologies; however, EPA experts participate in certain independent third-party standards committees that develop certification requirements for drinking water technologies.

   The EPA involvement with certification processes for new technologies and treatment standardization is limited to collaboration with other organizations, such as NSF and the National Institute of Standards and Technology (NIST). EPA staff are often involved with NSF workgroups for the development of standard testing protocols for new technologies. The EPA also works with NIST in the development of standard reference materials and recommendations for optimizing drinking water systems.

   The EPA regularly collaborates with vendors and states for evaluating and implementing new drinking water technologies. A good example of this type of effort is the testing and implementation of biological treatment of nitrate (https://www.epa.gov/sites/production/files/2014-11/documents/palo_full_scale_report_9-23-14.pdf). The EPA frequently uses Cooperative Research and Development Agreements (CRADAs) to work with vendors to evaluate and optimize their technologies. Another example, at a much broader scale, is EPA's collaborative efforts in the arsenic treatment demonstration program (https://www.epa.gov/water-research/arsenic-treatment-technology-demonstrations).

b. Once a drinking water technology attains proper certifications what makes it clear to water systems that they may use the technology and still receive federal financial assistance from EPA water financing programs?

   EPA Response: The Drinking Water State Revolving Fund (DWSRF) regulations and guidance allow for funding of various categories of infrastructure projects (treatment, transmission and distribution, source, storage, consolidation, and creation of new systems under certain circumstances), but do not specify technologies that might be employed. Projects funded by a state's DWSRF must facilitate compliance with national primary

drinking regulations or otherwise significantly further the protection of public health. In planning their projects, water systems often will, and in many cases are required to, consult with their state's Public Water System Supervision (PWSS) program on project-specific design and specifications to assist in ensuring that the project's public health protection objectives are met and that the selected technologies are appropriate to address compliance needs of the system as intended. For more information on DWSRF project categories, including project examples, see the DWSRF Eligibility Handbook on the Agency's website (https://www.epa.gov/sites/production/files/2017-08/documents/dwsrf_eligibility_handbook_june_13_2017_updated_508_versioni_0.pdf).

3. Understanding EPA as a government agency does not endorse any one technology over another, what is EPA's role in adoption of new technologies and helping public and private water systems make decisions about the use of certified technologies?

   EPA Response: The EPA does not register or approve new technologies under the Safe Drinking Water Act (SDWA), but instead establishes requirements for each regulated public water system (PWS) to deliver water that meets specific standards to persons served by the system. The EPA conducts and reviews scientific studies to evaluate the effectiveness, feasibility, and affordability of treatment technologies in removing contaminants of concern and identifies available technologies that achieve compliance with National Primary Drinking Water Drinking Water Regulations in accordance with SDWA § 1412(b)(E). Each PWS must determine what product or combination of products to use to meet the federal and any applicable state, tribal, or territorial drinking water requirements.

   When identifying Point of Use or Point of Entry technologies as small system compliance technology, the EPA specifies that the units shall not be accepted for compliance unless they are independently certified in accordance with an American National Standards Institute standard in accordance with SDWA § 1412(b)(4)(E)(ii).

   The EPA also evaluates certain new technologies for drinking water under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA requires that any product intended to kill or otherwise control pests (including microorganisms) cannot be sold or distributed unless it is registered by the EPA. The EPA also regulates pesticidal devices, including certain new drinking water technologies, under FIFRA.

   For more information about FIFRA and SDWA and the EPA's role in evaluating new technologies, see the Agency's website (https://www.epa.gov/ground-water-and-drinking-water/understanding-drinking-water-requirements-under-fifra-and-sdwa). The information on this website is intended to help water systems make decisions about the use of certified technologies.

   a. Is EPA making every effort to not restrain or discourage the use of innovative technologies that may accelerate the renewal of America's aging drinking water. infrastructure and save ratepayers money?

      EPA Response: The EPA is committed to promoting innovation. The EPA does not register or approve new technologies under the Safe Drinking Water Act (SDWA), but instead

establishes requirements for each regulated public water system (PWS) to deliver water that meets specific standards to persons served by the system. The EPA conducts and reviews scientific studies to evaluate the effectiveness, feasibility, and affordability of treatment technologies in removing contaminants of concern and identifies available technologies that achieve compliance with National Primary Drinking Water Regulations in accordance with SDWA 1412.b.E. Each PWS must determine what product or combination of products to use to meet the federal and any applicable state, tribal, or territorial drinking water requirements.

In order to advance drinking water technology, the EPA makes it a priority to collaborate with partners and stakeholders. For example, the EPA continues to work with vendors, states, and academia in the development of EPA's Drinking Water Treatability Database (see https://www.epa.gov/water-research/drinking-water-treatability-database-tdb), which contains information for over 70 regulated and unregulated contaminants and more than 30 treatment processes. The EPA also collaborates with non-federal partners through the Federal Technology Transfer Act (FTTA), through which businesses can license EPA's own patented technology and bring it to market. Through FTTA, businesses and non-federal organizations can also work cooperatively with the EPA to make improvements on existing EPA technologies to bring something new to market. More information on EPA's FTTA program is available at https://www.epa.gov/ftta. Another example of the EPA's engagement in technology innovation is the Agency's Small Business Innovation Research (SBIR) Program, which provides funding opportunities for the development of innovative water treatment processes and technologies. EPA staff are also often involved with National Science Foundation workgroups for the development of standard testing protocols for new technologies.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Michael Waltz

1. In July, this Committee passed H.R. 335, the South Florida Clean Coastal Waters Act of 2019. This legislation seeks to establish an inter-agency task force on Harmful Algal Blooms (HABs) and Hypoxia, and requires a plan for reducing, mitigating, and controlling HABs in Florida including the entire Indian River Lagoon estuary. What is the EPA already doing to reduce HABs and how would the EPA contribute to the task force as established in H.R. 335?

   EPA Response: The EPA participates in working groups, provides technical assistance and recommendations, and coordinates with states, drinking water utilities, NGOs, and other federal agencies to reduce harmful algal blooms (HABs) and to improve communications with affected states and tribes. The EPA co-chairs, with NOAA, the Interagency Working Group of the Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA) to coordinate actions that directly address the issues related to HABs and hypoxia in the U.S. across the Federal government. The EPA also coordinates with states and other Federal agencies in the evaluation of effective approaches to reduce excess nutrients in watersheds through the Source Water Initiative. The EPA has also hosted Regional HABs workshops to build awareness and strategies for improved domestic source water protection. Lastly, the EPA conducts research in the areas of monitoring, analytical methods, health effects, remote sensing, water treatment, and ecosystem impacts to detect, reduce and control the effects of cyanobacterial HABs and their toxins in drinking and surface water systems.

2. What is EPA currently doing to promote coastal resiliency and how is EPA helping states that are working to mitigate the effects of sea level rise?

   EPA Response: Under the coastal watersheds program, for the past ten years, the EPA has worked with coastal communities to conduct vulnerability assessments for coastal resilience to examine the impacts that a lack of resilience would have on built infrastructure and natural resources. Coastal areas face many stressors that are exacerbated by a lack of resilience. Through the development of practical and risk-based adaptation tools and strategies, the EPA's focus is to help communities assess coastal vulnerabilities, develop and implement hazard adaptation strategies, and engage with and educate stakeholders on the importance of addressing resilience challenges.

The EPA is providing support to states, tribes, and local communities in coastal communities and across the entire nation in their efforts to increase their resilience to sea level rise and other extreme events. For more information on this work, including training and other resources, you can visit: https://www.epa.gov/arc-x/climate-change-adaptation-training.

The EPA is making financial resources available to support climate-resilient investments in communities across the country, including the Brownfield Revolving Loan Fund grants (https://www.epa.gov/brownfields/types-brownfields-grant-funding). In addition, the Environmental Justice Small Grants Program may also be used to help communities develop localized strategies to address the risks posed by sea level rise to coastal communities **(**https://www.epa.gov/environmentaljustice/environmental-justice-small-grants-program).

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Mr. Francis Rooney

1. In May, I hosted a roundtable with federal, state, and local officials to discuss issues related to Harmful Algal Blooms and the federal response. It was a productive conversation, and I continue to be impressed with EPA's Region 4 Administrator Mary Walker. In her comments, she mentioned the importance of early warning systems, and placing more of a focus on septic and wastewater runoff. Can you provide an update on what the EPA is doing in Region 4?

   EPA Response: EPA Region 4 works closely with Florida on harmful algae bloom (HAB)-related issues including water quality standards and monitoring, early warning systems, and controlling nutrient sources. For example, the Florida Department of Environmental Protection (FDEP) has developed Basin Management Action Plans that identify nutrient sources and restoration projects. FDEP is implementing these action plans using EPA Region 4 grant funds, along with other state and local funds, to help address nutrient sources such as agriculture, failing septic tanks, and fertilizer use at homes. Also, EPA Region 4 recently funded the "Enhanced Water Quality and Seagrass Monitoring in the Caloosahatchee Estuary" and "Monitoring SAV in the Upper Caloosahatchee River" projects from its South Florida Geographic Initiative totaling $475,000. These projects will better characterize the status of the Caloosahatchee River Estuary (CRE) water quality by examining seagrass relationship to water quality stressors and will identify nutrient sources that can be targeted by resource managers. EPA Region 4 also provides support to the Army Corps, the Department of Interior, and FDEP on the Everglades Agricultural Area Reservoir Project that will reduce discharges to the estuaries and decrease the likelihood of HABs while providing more clean water for Everglades restoration. The EPA is doing additional research and recently released the Cyanobacteria Assessment Network mobile application (CyAN app), which provides access to algal bloom satellite data for over 2,000 of the largest lakes and reservoirs across the United States to help local and state water quality managers make faster and better-informed management decisions related to cyanobacterial blooms. Lastly, EPA Region 4 stands ready to provide technical and sampling assistance on HABs should FDEP request such assistance.

2. Another important topic that came up at May's roundtable was CDC's One Health Harmful Algal Bloom System (OHHABS), which is a voluntary reporting system that collects data on individual human and animal cases of illnesses from HAB-associated exposures. What has been EPA's contribution to OHHABS? Is the agency conducting any other research into the human health effects of HABs?

EPA Response: The EPA is a partner with the Centers for Disease Control and Prevention (CDC) on the One Health Harmful Algal Bloom System (OHHABS). The EPA has been involved in developing OHHABS since discussions began in 2013 about the approach and format of the system. The goal was to develop a harmful algal bloom surveillance system with national scope based upon the National Outbreak Reporting System platform at CDC. The OHHABs system was launched in summer 2017. EPA personnel have continued participation since the launch as part of the OHHABS working group composed of state and federal partners. The working group meets regularly and assists CDC with development of materials, definitions, content, and approaches. The EPA provides technical assistance with definitions and document development.

Cyanobacteria, also known as blue-green algae, are microorganisms that produce HABs. EPA researchers are understanding the health effects of HABs and cyanobacteria toxins on humans, animals, and ecosystems. This work includes studying whether cyanobacteria exposure causes skin and allergic reactions and determining the toxin production in cyanobacteria, which is highly variable. Additionally, the EPA is researching how HABs toxins affect drinking water, identifying technologies to help communities treat their drinking water in the event of a bloom, and studying how and why blooms occur. EPA research is also providing information on HABs and developing tools to help states and communities address and prepare for potential blooms. For example, EPA researchers are developing new and innovative tools, such as the CyAN app, which provides easy access to cyanobacteria bloom satellite data for over 2,000 of the largest lakes in the US. The app quickly delivers info to local and state water quality managers as well as the public. For more information on EPA's HABs research, please see the Agency's website (https://www.epa.gov/water-research/harmful-algal-blooms-cyanobacteria-research).

3. In the Gulf of Mexico, we are seeing a lot of nitrogen-based fertilizers that run down the Mississippi River and into the larger Gulf ecosystem. In my district in Southwest Florida and thought out the southern part of the state, we have seen many of the same issues. How is the EPA partnering with other agencies, like the USDA Agricultural Research Service, to prevent this occurrence and encourage the beneficial reuse and recycling of waste?

   EPA Response: The EPA routinely partners with the U.S. Department of Agriculture (USDA) and other agricultural partners to address excess nutrients from agricultural lands. For example, with USDA Natural Resources Conservation Service, the EPA supports the National Water Quality Initiative to reduce agricultural nonpoint sources of nutrient, sediment, and pathogens to improve water quality in about 200 watersheds nationwide. The EPA also partners with USDA, USGS, NOAA, the Corps of Engineers, and 12 Mississippi River Basin states in a Mississippi River/Gulf of Mexico Watershed Nutrient (Hypoxia) Task Force to meet nutrient reduction goals for the Gulf of Mexico hypoxic zone. As part of its efforts, the Hypoxia Task Force (HTF) partners with the 12 Land Grant Universities in the HTF states to strengthen research and outreach programs for reducing nutrient losses to state waters and the Gulf.

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Science and Technology at the Environmental Protection Agency"

Questions for the Record to:

The Honorable Andrew Wheeler

Administrator

Environmental Protection Agency

Submitted by Ms. Jennifer González Colon

1. Administrator Wheeler, earlier this year, the EPA announced a request for applications on a community participatory research program to help us better understand the environmental contamination, impact, and mitigation options at the Vieques Superfund Site. It is my understanding that this research program is intended to support the ongoing remediation activities of the U.S. Navy, and help the military and the EPA better understand the long-term mitigation needs for the community. Can you provide an update on this research effort, as well as how this research could be beneficial to the restoration effort in Vieques?

    a. Could you also share some of the next steps for this project and cleanup efforts overall?

    EPA Response: The EPA's National Center for Environmental Research has reviewed the research program applications that were received. They have selected a project to receive the grant. Details are not yet available as the EPA finalizes the award process, but the EPA anticipates awarding the grant in February 2020.

    Regarding cleanup at the Vieques Superfund site, the Navy has taken actions to address munitions, including investigation work and removal actions that continue across the site. The significant progress includes: (1) clearance of approximately 4,100 acres of surface munitions; (2) clearance of approximately 460 acres of subsurface munitions; and (3) the location and destruction of approximately 109,000 munitions and explosives of concern. In addition to actions being taken to address munitions on the land, the Navy is investigating to determine the nature and extent of munitions in the waters adjacent to the former bombing range and associated support areas. The EPA is overseeing this work, which will take several years given the complexity and safety considerations.

    Some areas previously closed to the public due to the presence of munitions now have limited public access, such as the Puerto Ferro lighthouse. The EPA and Navy continue to work with the Commonwealth of Puerto Rico and the Department of Interior (Fish and Wildlife Service) to prioritize addressing areas that would result in greater public access to the National Wildlife Refuge on both eastern and western Vieques.

2. The EPA is a strong partner with managing the number of landfills that are currently operating in Puerto Rico. In September of 2016, the agency published a report on the work being undertaken to address landfill capacity and resources in Puerto Rico. The island has approximately 28 landfills, and most are at capacity. According to recent press reports, close to half might close by 2021-2022. By the time the 2016 report was published, the EPA had legal agreements to close 12 landfills and would continue developing legal agreements as needed. Can you provide an update on the agreements that are currently pending, as well as insight on how EPA is collaborating with Puerto Rico officials to close wells that are at capacity and open new ones?

    a. Lastly, could you clarify if this work has been compromised due to the recovery process after the hurricanes in 2017? If so, could you also clarify what is EPA doing to mitigate these delays?

    EPA Response: The EPA's role in solid waste management is to establish overall regulatory direction, to provide minimum standards for protecting human health and the environment, to offer technical assistance to states for planning and developing sound waste management practices, and to approve state solid waste programs. The planning and direct implementation of solid waste programs under RCRA Subtitle D remain primarily state and local functions.

    Given the nature of the challenges faced by Puerto Rico in managing solid waste, the EPA has over the years taken extraordinary measures to assist Puerto Rico in the development and implementation of its solid waste management programs. Puerto Rican municipalities subject to EPA Administrative Orders have had continuing difficulty meeting the requirements established in these orders and this has been exacerbated since being hit with Hurricanes Irma and Maria. Many of the municipalities requested, and were granted, extensions to the deadlines required by these orders. The EPA continues to work with the municipalities to help them achieve compliance and protect the health of people in their communities. The EPA is committed to working with Puerto Rico beyond the recovery process to ensure the long-term sustainability of Puerto Rico's solid waste management program and facilities as Puerto Rico officials undertake immediate corrective actions to protect public health and the environment. In addition, the EPA has been working with our partners to potentially explore recycling markets and to incorporate sustainable materials management principles and practices into Puerto Rico's waste management system.

    The EPA will continue to work with Puerto Rico to maximize all funding options and establish a functioning, long-term solid waste management system. The EPA intends to achieve this through a combination of utilizing supplemental funding; annual state, federal and other stakeholder financial supports; and intensive technical assistance. The EPA recently awarded a $6.2 million grant to the Puerto Rico Department of Natural and Environmental Resources (DNER) as the first installment of a $40 million grant for hazardous and solid waste management financial assistance. This funding is awarded through the Supplemental Appropriation for Disaster Relief under the Bipartisan Budget Act of 2018, which provides supplemental appropriations to respond to and recover from recent hurricanes and other disasters.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 0 9 2019

OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: FY2020 Call for Nomination of Chemicals as a High Priority for an IRIS Assessment

FROM: Jennifer Orme-Zavaleta, Ph.D.
Principal Deputy Assistant Administrator for Science
Office of Research and Development

TO: Assistant Administrators and Deputies

The Office of Research and Development (ORD) is issuing its annual solicitation for input on Program high priorities for development of future Integrated Risk Information System (IRIS) assessments.

As directed by then Acting Administrator Wheeler in 2018, the Office of Research and Development implemented a new process for soliciting Agency input on high priorities for IRIS assessments. The purpose of this new process is to ensure that IRIS assessment activities are focused on the most important Agency needs, properly scoped to inform the decision context for the requesting office, and that timelines are established at the outset so that completed assessments can inform and facilitate timely Agency decision-making. Table 1 describes the status of the assessments requested by the Agency in FY2019.

FY2020 Nomination of IRIS Priorities

To nominate a chemical as a new IRIS priority, please complete the IRIS Assessment Request Form (attachment 1). Specifically, ORD requests the following information:

- Requesting office name
- Chemical name & CASRN
- Requested completion date
- Scope of assessment
- Reason for request
- Signature of Program Office Assistant Administrator (for Program and Regional requests) or Associate Deputy Administrator (for offices within the AO)

When making nominations for high priority IRIS assessments the Programs should consider the information needs necessary to satisfy its statutory and regulatory mandates. The Programs should also consider other existing assessment activities within the Agency (e.g., PPRTVs, TSCA activities, Office of Water (OW) Health Advisory/Effects documents, Office of Pesticide

Programs (OPP) Registration/Reregistration Reviews, etc.) in submitting their high priorities. The following links provide information where the Agency has provided advanced information on assessment activities:

- IRIS
- Chemical Prioritization under TSCA:
  - First 10 chemicals identified for risk evaluation
  - Proposed 20 high priority substances
  - Proposed 20 low priority substances
- Pesticide Registration Review Schedules

It is the Administrator's c ha ader s nominating a chemical will have been briefed by their staff on the need for an assessment and that the Assistant Administrator will endorse each request by signing the attached form. Regional offices are asked to submit their nominations i ona. Administrator to the relevant Na' ona Program Manager for the same or endorsement and signature. Nomi t from Offices within the Administrator's Office are required to have the endorsement signature of the Associate Deputy Administrator.

Beginning October 18 i e a the nominations to determine feas' l y a ORD's capacity, including available resources, to conduct the assessment. ORD w brief the Administrator on its recommendations prior to finalizing any new IRIS priorities. Once new priorities have been finalized, a .pdated nomination form signed b' Assistant Administrator for the nominating Program (or the Associate Deputy Administra' or i t a e A , and the Principal Deputy Assistant Administrator for Science for ORD, will be generated to formalize the request.

ORD will ci new assessment needs annually and · e ts for new IRIS priorities in conformance with the process outlined in this m at any time.

Please return nominations to me by **October 18, 2019**. To coordinate with the IRIS Program, please contact Kris Thayer at 919-541-01[illegible] thayer.kris@epa.gov. If you have any other questions regarding this request, please feel free to contact me.

Thank you again for your assistance i l i nt t s

Attachments:

1. Table 1: FY2019 IRIS Assessment Priorities
2. IRIS Assessment Request Form

CC: Andrew Wheeler, Administrator
Doug Benevento, Associate Deputy Administrator
Henry Darwin, Assistant Deputy Administrator
David Dunlap, Deputy Assistant Administrator for Science Policy, ORD
Regional Administrators and Deputies
IRIS Points of Contact

Table 1: FY2019 IRIS Assessment Priorities

Chemical	Requested Routes of Exposure and Scope	Sponsoring Office	Status*/Chemical-Specific Web Page
Hexavalent Chromium	Oral and inhalation cancer and noncancer	OW, OLEM	Step 1 (Systemat Rev w otocol released 3/2019) https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?&substance_nmbr=144
Inorganic Arsenic	Oral and inhalation cancer and noncancer	OW, OLEM	Step 1 (Up ed Problem Formulation and Systematic Review Protoco released 19) https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?&substance_nmbr=278
Mercury salts	Oral and inhalation cancer and noncancer	OLEM	Step 1 (IRIS Assessment Plan not yet released) Chemical-specific web page forthcoming.
Methylmercury	Oral and inhalation noncancer	OLEM	Step 1 (IRIS Assessment Plan relea ed 4/2019) https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?&substance_nmbr=73
PCBs	Oral and inhalation noncancer	OLEM	Step 1 (Systematic Review Protocol not yet rel ase https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?&substance_nmbr=294
PFAS (PFBA, PFHxA, PFHxS, PFDA, PFNA)	Oral cancer and noncancer	OW	Step 1 (Systematic Review Protocol not yet relea) Chemical-speci b pages forthcoming.
Vanadium and Compounds	Oral cancer and noncancer	OW	Step 1 (IRIS Assessment Plan not yet rel ased) Chemical-specific web page forthcoming.

* IRIS assessments undergo a 7-step proce More information on the IRIS process may be found at https://www.epa.gov/iris/basic-information-ab integrated-risk-infor -system#process.

IRIS Assessment Request Form

Requesting Office:

Request Date:

Requested Completion Date:

Chemical Nominated for Assessment:

Scope of Assessment (Please provide needed types of toxicity values, routes of exposure, etc.)**:**

Reason for Request (Please provide decision or regulatory context e . to identify cleanup levels, develop an MCL, etc.)

Signatures:

Program Office Assistant Administrator or Associate Deputy Administrator	**ORD Principal Deputy Assistant Administrator for Science**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 28 2020

OFFICE OF CONGRESSIONAL
AND INTERGOVERNMENTAL RELATIONS

The Honorable Thomas R. Carper
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Carper:

On behalf of the U.S. Environmental Protection Agency, I am writing in response to your letters dated March 6, 2019 and February 14, 2020, in which you sought information related to the Agency's efforts to address per- and polyfluoroalkyl substances (PFAS). PFAS-related issues are a priority for the EPA and we are working aggressively and cooperatively with our federal and state partners to take significant action in order to protect human health and the environment.

Last year, the EPA issued the first-ever *PFAS Action Plan*—a historic step in our nation's efforts to address PFAS in the environment. The *Action Plan* represented a number of important firsts for the Agency. It was the first time the EPA has used all of our program offices to address an emerging chemical of concern. It was also the first time the Agency had put together a multi-media, multi-program national research, management, and risk communication plan to respond to a challenge like PFAS. By prioritizing our work under the *Action Plan*, the EPA is delivering on President Trump's commitment to protect the health and well-being of communities across the country that are dealing with PFAS issues.

Over the past year, the EPA has built on the momentum the launch of the *Action Plan* put in motion, and our efforts have been nothing short of unprecedented. The Agency has made progress in all of our program areas—from groundwater cleanup guidance, to new test methods that are helping to move our research efforts forward, to updates to our Toxics Release Inventory, to progress on updating our drinking water standards. These actions reflect the execution of the comprehensive and coordinated approach we outlined in the *Action Plan*.

Contrary to your recent criticism on February 10, 2020, where you gave the EPA a "D-" grade for implementation of our Action Plan and characterized the Agency as "failing to uphold the promises," the EPA has in fact made significant progress in meeting the goals we set for ourselves in the Action Plan. Your statement is a discredit to the hard work of the dedicated career EPA employees who are working on PFAS. The EPA has made aggressive commitments

and we have made significant progress in meeting our goals. Specifically, we want to detail the progress we have made in the following areas:

- Drinking Water: The EPA is following through on its commitment to evaluate and address PFAS in drinking water. The Agency's work over the past year included efforts to expand drinking water test methods, to work under the Safe Drinking Water Act (SDWA) to propose to regulate PFOA and PFOS, to produce new toxicity assessments, and to continue monitoring for PFAS.
- Environmental Cleanup: Over the past year, the EPA has made considerable progress under the *Action Plan* as it relates to cleanups. In December 2019, the EPA issued the Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS under federal cleanup programs, a priority action under the *Action Plan*. The EPA also continues moving forward with the regulatory process for proposing to designate PFOA and PFOS as hazardous substances under CERCLA, while also developing analytical methods for environmental media and conducting treatment and disposal research.
- Chemical Review and Disclosure: The EPA has taken significant actions under the Toxics Release Inventory and the Toxic Substances Control Act program. In the past year, the Agency has taken steps to update the Toxics Release Inventory program to include PFAS and to finalize a Significant New Use Rule for PFAS chemicals.
- Research: The EPA's goal under the *Action Plan* has been to develop and apply scientific information and tools to enable federal, state, local, and tribal governments to work together to make informed decisions to protect public health and the environment. In the past year, the EPA has taken steps to prioritize PFAS research on impacts to agriculture and rural economies, to develop additional analytical methods, and to conduct toxicity and effects research and development.
- Technical Assistance and Support: Over the past year, the EPA provided technical support to multiple states on PFAS contamination and treatment. The EPA is currently responding to requests for assistance from more than a dozen state and territorial governments by screening for PFAS at high priority sites and training local health agencies to test for PFAS on their own. The EPA is also providing cleanup assistance to more than 30 states and the District of Columbia to address PFAS at contaminated groundwater and soil sites.
- Funding: As a leader in the nation's efforts to address PFAS in the environment, the EPA recognizes that providing funding to external organizations is a critical component to successfully addressing these chemicals. Over the past year, the EPA has funded efforts to improve understanding of human and ecological exposure to PFAS, to assess and manage environmental risks posed by PFAS wastes, to conduct research on PFAS in agriculture, and to address PFAS under the Drinking Water State Revolving Fund.
- Risk Communications and Engagement: Risk communication and engagement are critical for the EPA to effectively support communities across the United States that are addressing PFAS. As outlined in the *Action Plan*, the EPA is actively working to enhance the way in which the Agency communicates about potential human health risks that may be associated with PFAS.

On February 26, the EPA released the *EPA PFAS Action Plan: Program Update*, which describes the Agency's accomplishments since release of the *Action Plan* in greater detail. The

Program Update is publicly available on the EPA's website at https://www.epa.gov/pfas/pfas-action-plan-program-update-february-2020.

Also enclosed are responses to questions for the record from the March 28, 2019 hearing entitled, "*Examining the federal response to the risks associated with per- and polyfluoroalkyl substances (PFAS).*"

The EPA is committed to continuing to aggressively implement the *Action Plan*—the most comprehensive cross-Agency plan ever to address an emerging chemical of concern. The EPA's *Action Plan* and the progress that has been made over the past year under the *Action Plan* demonstrates the Agency's leadership role at the national level to address this emerging environmental concern. This includes ensuring that instances where PFAS pose risk to public health or the environment are identified and quickly addressed. Over the next year, the EPA will make further progress on addressing PFAS under a number of key environmental laws, while also working to expand on its inhouse and extramural research efforts, enhance the Agency's engagement with the rest of the federal government, and focus its efforts on providing more information and data to the public.

The Agency recognizes the importance of the Committee's need to obtain information necessary to perform its legitimate oversight functions and is committed to continuing to work with your staff on how best to accommodate the Committee's interests. If you have further questions, you may contact me or your staff may contact Travis Voyles in the EPA's Office of Congressional and Intergovernmental Relations at Voyles.Travis@epa.gov or (202) 564-6399.

Sincerely,

Joseph A. Brazauskas, Jr.
Associate Administrator

Enclosures

Senate Committee on Environment and Public Works
Hearing entitled, *"Examining the federal response to the risks associated with per- and polyfluoroalkyl substances (PFAS)"*
March 28, 2019
Questions for the Record for Mr. Ross

Chairman Barrasso:

1. When does EPA intend to issue a proposed rule for designating PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act?

   The EPA has initiated the regulatory process for proposing to designate PFOA and PFOS as "hazardous substances" under CERCLA.

2. When does EPA intend to release its interim groundwater cleanup recommendations for PFOA and PFOS?

   The EPA released the draft Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS for public comment on April 25, 2019. The public comment period remained open through June 10, 2019. The comments received were reviewed and considered and the EPA issued the Interim Recommendations on December 20, 2019.

3. Is EPA aware of any informal or formal estimates of the costs to clean up all sites, where the Department of Defense (DOD) or other federal agencies have contaminated groundwater with PFOS and/or PFOA at levels above 70 parts per trillion (ppt), to a level of 70 ppt? If so, please provide those informal or formal cost estimates.

   The best estimates of cleanup costs, where the Department of Defense (DOD) or other federal agencies have contaminated groundwater with PFOS and/or PFOA, would come from DOD or the other responsible federal agency.

4. Is EPA aware of any informal or formal estimates of the costs to clean up all sites, where DOD or other federal agencies contaminated groundwater with PFOS and/or PFOA at levels above 380 ppt, to a level of 70 ppt? If so, please provide those informal or formal cost estimates.

   The best estimates of cleanup costs, where the Department of Defense (DOD) or other federal agencies have contaminated groundwater with PFOS and/or PFOA, would come from DOD or the other responsible federal agency.

5. Please provide the following:

   a. The legal citations to all the final Significant New Use Rules (SNURs) that address PFAS chemicals.

      See the references in Tab 1 and Column E on the Tab labeled "active & Non-CBI (191)" and Column E on the Tab labeled "active & CBI sanitized (125)" of

Attachment 1.

b. List all the PFAS chemicals (including acronyms and Chemical Abstracts Service Registry Numbers (CASRNs)) that are subject to these SNURs.

See Column C of the Tab labeled "active & Non-CBI (191)" and Tab labeled "active & CBI sanitized (125)" of Attachment 1.

c. List all the PFAS chemicals (including acronyms and CASRNs) that have entered the market under one of the exemptions to full pre-manufacture notice review under section 5 of the Toxic Substances Control Act (TSCA).

A notice of commencement (NOC) indicates intent to commence manufacture or import of a chemical. A NOC is the EPA's best indication of whether a PFAS chemical may have entered the market. However, chemicals subject to exemption notices are not added to the TSCA inventory and NOCs are not required to be filed. Therefore, the EPA cannot indicate with certainty which chemicals that are the subject of an exemption have entered the market.

d. List all the PFAS chemicals (including acronyms and CASRNs) that are *either* subject to final SNURs *or* have entered the market under one of the exemptions to full pre-manufacture notice review *and* are now considered "commercially active" on the TSCA Inventory.

See Column C of the Tab labeled "active & Non-CBI (191)" and the Tab labeled "active & CBI sanitized (125)" of Attachment 1.

Please note this information reflects chemicals which are on the TSCA Inventory. PFAS chemicals which have entered the market under one of the exemptions to full pre-manufacture notice review are not included on the TSCA Inventory and therefore are not subject to the Inventory Rule identifying chemicals as commercially active or inactive.

6. EPA has published a validated monitoring methodology (EPA Method 537.1) for detecting 18 PFAS chemicals in drinking water. In 2019, EPA is expected to publish validated monitoring methodologies for detecting 24 PFAS in media other than drinking water. Over 600 PFAS are considered "commercially active" on the TSCA Inventory.

a. Why has EPA decided to focus on these specific PFAS chemicals?

The EPA considers multiple factors when developing methods for PFAS chemicals. These factors include known or suspected PFAS chemical occurrence, availability of laboratory reference standards, gaps in existing analytical method coverage, and the interests and needs of internal and external Agency stakeholders. The EPA chose to develop methods for these specific PFAS chemicals based on evaluating these factors.

b. What are EPA's plans to publish validated monitoring methodologies for other PFAS chemicals in drinking water and media other than drinking water?

The EPA has numerous ongoing efforts. On December 19, 2019, the EPA released a new drinking water method (EPA Method 533) that measures additional compounds, particularly PFAS compounds with twelve carbons [C12] in chain length and fewer. EPA Method 533 allows for the measurement of the GenX chemical HFPO-DA and 24 other PFAS chemicals. EPA Method 533 also supports monitoring at lower concentrations than was possible during the EPA's third Unregulated Contaminant Monitoring Rule. For analyzing media other than drinking water, such as ground, surface, and waste waters, the EPA has released for public comment a validated method for a set of 24 PFAS using direct injection (Method 8327) and is working with DOD on validating a method for the same set of 24 PFAS using an isotope dilution method. There are also sample preparation methods that will support the analysis of solid samples (e.g. soils, sediments, tissue) using the isotope dilution method. Finally, the EPA is collaborating with states and DOD to develop sampling and analytical methods for detecting and identifying PFAS in ambient air and stack emissions.

7. You testified that EPA has "a holistic action plan" to address PFAS. You went on to say that: "I worry about the lifecycle of these chemicals. You take them out of water supply. Are we just transferring the media to which we have a problem?" Please describe EPA's plans to provide guidance on the disposal of PFAS, including the disposal of products with PFAS (including but not limited to aqueous film forming foam) and water filtration systems (including but not limited to granular activated carbon) that collect PFAS.

As part of the EPA's PFAS Action Plan, the EPA is gathering information to better understand treatment and disposal issues with respect to PFAS chemical waste, including considerations of the life cycle of these compounds. The EPA will continue to gather information and evaluate whether guidance is needed. PFAS chemicals can be extremely long-lived and there is a possibility for transfer across media including air, water, and land treatment/disposal systems. Depending on various technical considerations, including the volume and toxicity of the specific wastes, thermal destruction in high temperature incinerators may be the preferred treatment method to prevent cross media transfers, assuming sufficient temperatures and residence times are achieved to ensure adequate PFAS chemical destruction, and assuming adequate pollution controls are utilized.

8. EPA is in the process of conducting toxicity assessments for five PFAS chemicals through its Integrated Risk Information System. Separately, EPA released draft assessments for PFAS chemicals, known as GenX and PFBS, in 2018.

    a. Why did EPA focus on these specific nine PFAS?

    In late 2017, at the direction of the Administrator, the EPA prioritized seven PFAS chemicals for assessment to support agency and state decision makers. These seven PFAS include GenX, PFBS, PFBA, PFHxA, PFHxS, PFDA, and PFNA. (This priority list is seven PFAS, as noted in the initial question, not nine.) These were chosen primarily because these PFAS chemicals are the common focus of actions across the agency, because they are of high interest to states and other stakeholders,

and because they have a relatively large toxicity database that is needed to support assessment. All seven PFAS chemical assessments have undergone or will undergo an assessment development process designed to produce toxicity assessments of high quality that includes: systematic review methods, interagency review, public comment, and rigorous peer review.

b. Does EPA plan to conduct toxicity assessments on other PFAS chemicals? If so, please list which PFAS chemicals (including acronyms and CASRNs).

The EPA is currently focusing on the seven PFAS chemicals discussed above. However, the EPA will continue to evaluate whether other assessments are needed in the future.

Understanding which PFAS chemicals act similarly or differently can inform whether certain PFAS chemicals could be assessed together in one risk evaluation, thereby increasing efficiency of risk evaluations and potentially strengthening the scientific underpinnings. Research conducted by the EPA using in vitro tiered testing and computational methods may generate useful information to begin the evaluation of hazards across classes or for structurally similar PFAS chemicals, which will inform future prioritization and assessment of existing PFAS chemicals.

EPA researchers are also applying computational and high throughput toxicology tools for PFAS toxicity testing on a larger scale to enable faster understanding of potential toxicity for the universe of thousands of PFAS, most of which have little or no published toxicity data.

9. Please list which PFAS chemicals (including acronyms and CASRNs) EPA intends to propose including in Unregulated Contaminants Monitoring Rule 5.

The EPA has made no final decisions about which PFAS chemicals should be monitored in the Unregulated Contaminant Monitoring Rule (UCMR) 5. To determine which PFAS chemicals will be included in UCMR 5, the EPA plans to look at the newer methods that can detect more PFAS chemicals and at lower minimum reporting levels (MRLs) than possible in the EPA's previous data collection. The EPA anticipates proposing UCMR 5 in 2020, evaluating public comments, and plans to publish a final UCMR 5 in late 2021. The EPA will also evaluate the new requirements of the National Defense Authorization Act (NDAA) for Fiscal Year 2020 (P.L. 116-92) when proposing and finalizing UCMR 5, subject to the availability of appropriations.

10. What do you need from chemical manufacturers and processors or others in the private sector to better understand and respond to the risks associated with PFAS chemicals?

Under TSCA for new chemicals, the EPA receives information about the manufacture, processing and intended use (including industrial, commercial and consumer uses) of PFAS chemicals as part of the Pre-Manufacture Notice (PMN). During review the EPA may request, or submitters may provide, additional clarifying information to facilitate new chemical review. If the EPA finds the information insufficient to permit a reasoned evaluation of health and environmental effects, TSCA provides a statutory mechanism for

the EPA to require additional information necessary to permit a reasoned evaluation to be generated (i.e., the EPA may make a finding of 'insufficient information' and issue an order under TSCA section 5(e)). The TSCA New Chemicals Program has often required environmental fate testing on PFAS chemicals to understand the timeframe and extent of the degradation of PFAS chemicals in the environment and what chemicals they may transform into in the environment.

Under TSCA for existing PFAS chemicals (i.e., those that have not undergone new chemical review or PFAS chemicals for which uses have expanded since they were added to the TSCA Inventory), the EPA regularly gathers information (e.g., manufacturers, production volumes, uses) through regular (every four years) issuance of Chemical Data Reporting (CDR) Rules. It should be noted that certain information reported under CDR may be claimed as Confidential Business Information (CBI). In addition, the use categories are necessarily grouped or generalized to facilitate efficient reporting. Hence, the very specific products and/or applications of every PFAS chemical on the TSCA Inventory may not always be available to the public.

11. Are there lessons or best practices that we can learn from other countries, which are also addressing the risks to public health and the environment associated with PFAS? If so, what are these lessons or best practices?

    The EPA is engaged with the international community (primarily Canada, Australia, and the EU) to share lessons learned and best practices. For example, the EPA has had discussions with the Australian Department of the Defense to exchange information on methods to treat and detect PFAS chemicals. Other international organizations, such as the International Organization for Standardization and ASTM International, have developed analytical methods that the EPA has explored for use. Also, the EPA's literature reviews for PFOA, PFOS and other PFAS chemicals included toxicity information from international authorities. The EPA will continue to coordinate with international partners, as well as our domestic partners from other federal agencies, states, tribes, industry groups, associations, local governments, communities and the public, to share knowledge, lessons learned and best practices.

12. What steps can the Executive Branch take to improve coordination among federal agencies as it responds to the risks associated with PFAS chemicals?

    The EPA is already taking steps to coordinate responses to the potential risks associated with exposure to PFAS chemicals. For example, one of the primary focuses of the EPA's cross agency workgroup is to enhance coordination with states, tribes, and federal partners to provide communities with critical information and tools to address these risks and take steps to minimize them. Through efforts such as the National Summit, community engagements and reviews of scientific documents (e.g. GenX and PFBS toxicity assessments), the EPA has continued to collaborate with federal partners.

    Additionally, the EPA continues to work in partnership with federal agencies, states, tribes, and local communities by coordinating with others to identify exposures, develop methods in order to measure PFAS in the environment, and support cleanup efforts where PFAS have been identified as a risk to human health. This includes working with other federal

partners and using enforcement tools where necessary. Additionally, in accordance with the "Directive to prioritize federal research on impacts to agriculture and rural economies in EPA's Per- and Polyfluoralkyl Substances (PFAS) Action Plan," issued by EPA Administrator Wheeler, the EPA is actively working to identify research needs of our federal partners and to allocate resources to those research needs.

13. What steps can the Executive Branch take to improve communication with states, tribes, local communities, and the public about the risks associated with PFAS chemicals?

    The EPA is continuing to work with states, tribes, local communities, and the public to identify the best tools to communicate the potential risks associated with PFAS chemicals. Risk communication is a prominent part of the Agency's Action Plan, as the EPA seeks to provide the most accurate, scientifically sound, and current information to the public.

Ranking Member Carper:

Questions about the PFAS Action Plan

14. Please provide the following:

    a. Copies of all documents exchanged between EPA and DOD regarding the PFAS Action Plan or the groundwater cleanup guidelines for PFOS and PFOA.
    b. Copies of all documents exchanged between EPA and OMB regarding the PFAS Action Plan or the groundwater cleanup guidelines for PFOS and PFOA.
    c. Copies of all documents exchanged between EPA and HHS regarding the PFAS Action Plan or the groundwater cleanup guidelines for PFOS and PFOA.
    d. Copies of all documents exchanged between EPA and NASA regarding the PFAS Action Plan or the groundwater cleanup guidelines for PFOS and PFOA.

    For purposes of this request, "documents" includes, but is not limited to, comments, notes, emails, legal and other memoranda, white papers, scientific references, letters, telephone logs, text messages, meeting minutes and calendars, photographs, slides and presentations. In the case of meetings, calls, or other oral communications, please include the date, time, and location at which such communications took place, a list of the individuals who participated, as well as a description of the communication.

    The EPA recognizes the importance of Congress' need to obtain information necessary to perform its legitimate oversight functions and is committed to continuing to work with your staff to best accommodate the Committee's interests. The EPA received your March 6, 2019, letter, which includes this document request, and we are working to provide a response while also continuing our important mission of implementing the Agency's commitments in the Action Plan.

15. At the press conference announcing the PFAS Action Plan, Administrator Wheeler described eight instances in which EPA issued enforcement orders or assisted with state enforcement actions. Please provide details of each such instance (and any subsequent actions), including the name of the cases and defendants, the jurisdictions/states where enforcement occurred, and any notices of violation issued.

The following are enforcement actions the EPA has taken related to PFAS chemicals.

In 2005, the EPA entered into an administrative settlement with DuPont resolving violations related to PFOA under TSCA and RCRA at its West Virginia facility and required DuPont to pay $10.25 million in civil penalties and perform supplemental environmental projects worth $6.25 million.

Between 2002 and 2017, the EPA issued three Safe Drinking Water Act § 1431 imminent and substantial endangerment Orders on Consent, and one amendment to an order, to DuPont requiring the provision of alternative water supplies for public and private water systems in the vicinity of the Washington Works, West Virginia facility due to PFOA contamination. The 2009 order based its actions on the agency's 2009 Provisional Health Advisory for PFOA. The 2017 amendment was a significant amendment to the 2009 order, was issued to DuPont and Chemours, and tied actions to the agency's 2016 drinking water lifetime health advisory (LHA) for PFOA.

In 2018, at the EPA's request, Chemours began sampling numerous private wells and Public Water Systems (PWSs) for GenX chemicals.

In 2014 and 2015, the EPA issued a total of three Safe Drinking Water Act § 1431 imminent and substantial endangerment unilateral orders to Federal agencies for PFOA and/or PFOS above the Provisional Health Advisory in drinking water (these are also NPL sites). The Navy, Air National Guard, and Air Force have agreed to voluntarily use the newer lifetime health advisory values of 70 ppt as finalized in May 2016. The three facilities subject to orders include:

Naval Air Warfare Center, Warminster, PA (2014);
Horsham Air Guard Station/Willow Grove, PA (2015); and
Pease Air Force Base, NH (2015).

Note, in addition to the enforcement actions above, in 2009 as part of the premanufacturing review process for GenX, the EPA issued a TSCA section 5(e) Consent Order pursuant to its regulatory authority under the act, to DuPont requiring 99% capture of GenX releases. The EPA continues to monitor Chemours' compliance with that order.

On February 14, 2019, the EPA sent a Notice of Violation to Chemours outlining violations of TSCA at the Fayetteville facility in North Carolina, and the Washington Works facility in Parkersburg, West Virginia.

In 2011, EPA and the RACER Trust entered into an administrative order on consent (AOC) under RCRA 3008(h) to perform corrective measures at the Buick City facility. Under this AOC, the RACER Trust is conducting an investigation to define the level and extent of PFAS contamination at the facility and they plan to address the contamination in an upcoming Statement of Basis.

The EPA also has provided assistance to states on their PFAS chemical actions. Examples include:

Wolverine (MI) – The EPA is overseeing a federal CERCLA time-critical removal action and providing technical assistance to the Michigan Department of Environment, Great Lakes & Energy (EGLE) while EGLE responds to PFAS chemical contamination of residential wells from the Wolverine World Wide (Wolverine) Tannery and House Street Disposal Site. The EPA assistance has also included issuing a multi-media information request and sampling of residential wells for PFAS chemicals in December 2017 and providing technical assistance on sampling locations, filter effectiveness, sampling protocols, sample analysis, and public communication efforts.

Chemours (NC) – At the request of the NC DEQ, in 2017 and 2018, the EPA provided significant laboratory assistance to support the State's investigation of GenX in the Cape Fear River, which resulted in a state enforcement action and February 2019 settlement.

Hoosick Falls (NY) – The EPA added this site to the Superfund NPL in July 2017. NYSDEC is the lead for the cleanup with extensive EPA support.

16. The PFAS Action Plan describes research efforts designed to inform EPA's future regulatory efforts related to PFAS. How will EPA use non-targeted analysis to identify any and all PFAS in the environment to inform its decisions for the regulation of PFAS, for example by requiring listing of specific PFAS on the Toxics Release Inventory? If EPA has no such plans why not, since history has shown that the presence of one type of PFAS often means that others are also present at an environmental site?

    Under TSCA, the use of non-targeted analysis is not particularly helpful for regulation, since it does not specifically identify chemicals. The nature of non-targeted testing is such that it allows researchers to test for unknown chemicals in water, soil, and other types of samples without having a preconceived idea of what chemicals are present.

    Non-targeted analysis is one of the tools that the EPA will use to detect and identify previously unknown chemicals in the environment. This will then enable the agency to decide whether to prioritize such chemicals for toxicity and exposure assessment which in turn will inform decisions about whether and how to take regulatory or other actions.

    Other activities described in the PFAS Action Plan, specifically the development of toxicity values for chemicals, may be helpful with TRI listing. The literature reviews and toxicity profiles developed to support toxicity value development and the toxicity values themselves, can be useful when considering chemicals for listing on the TRI.

17. The PFAS Action Plan describes EPA's efforts to use computational methods utilized in EPA's CompTox program "to explore different chemical categories of PFAS, to inform hazard effects characterization, and to promote prioritization of chemicals for further testing." How does EPA plan to integrate the results of this work into its regulatory efforts, for example, by ensuring that the information is considered when EPA is reviewing pre-manufacturing notices for new PFAS or using the results to inform its regulatory efforts for existing PFAS?

    The EPA's TSCA New Chemicals Program has used computational methods and chemical categories for decades and is exceptionally positioned to utilize any methods and/or categories developed for characterizing PFAS chemicals. Based on years of reviewing

various PFAS chemicals, the TSCA program recognizes that not all PFAS chemicals share the same environmental fate and toxicity profiles and therefore should not be assessed as a single group. The New Chemicals Program routinely 'sub-categorizes' any new PFAS chemical during new chemical review, e.g. when selecting analogues to use in assessment.

Due to this long-standing application of computational methods and categories in particular the EPA has been working collaboratively within the agency on the PFAS chemical categories work; i.e., sharing of new chemicals information to help support development of categories and identify data gaps. This data gap analysis informed prioritization of chemicals for further testing.

Category definition and understanding of the underlying scientific basis for grouping of PFAS chemicals will also inform future prioritization and assessment of existing chemicals. For example, understanding which PFAS chemicals act similarly or differently can inform whether certain PFAS chemicals could be assessed together in one risk evaluation, thereby strengthening the scientific underpinnings and increasing efficiency of risk evaluations.

For other kinds of regulatory decisions, the EPA will be exploring how best to incorporate computational toxicological information into the decision-making process, for example by utilizing read-across methods to inform assessments of potential adverse health effects of chemicals or groups of chemicals.

18. The PFAS Action Plan stated that EPA plans to "finalize draft toxicity assessments for GenX chemicals and PFBS; develop additional PFAS toxicity values for PFBA, PFHxA, PFHxS, PFNA, and PFDA." How can approaches such as evidence mapping be used to identify other PFAS substances that might be good candidates for toxicity evaluations? How does EPA plan to use these toxicity values to inform decisions on tracking or regulating these PFAS?

    The EPA is beginning to use evidence mapping approaches to monitor whether data becomes available for additional PFAS chemicals to potentially support future toxicity assessments. These approaches can also be informative for understanding the extent of toxicological similarity between different PFAS chemicals and for informing decisions about which PFAS chemicals should be prioritized for toxicity assessment. Toxicity assessments provide the scientific basis for the development of a toxicity value.

    Toxicity values then become one piece of information used to inform regulatory decisions through providing information about the potential hazard to human health and the environment posed by the chemical. That information is often combined with information about exposure to support a regulatory decision. For example, to make a determination to regulate a contaminant in drinking water, the EPA must consider three criteria: 1) adverse human health effects, 2) occurrence in public drinking water systems with a frequency and at levels of health concern, and 3) in the sole judgement of the Administrator, a meaningful opportunity for health risk reduction through regulation. Toxicity values inform the first of those three criteria.

    The EPA anticipates that development of toxicity values for any additional PFAS chemicals, which includes surveying/reviewing literature, evidence mapping and hazard

identification can benefit the TSCA risk evaluation program, as these first steps are common to most risk evaluation processes, including under TSCA.

Questions about PFAS-contaminated sludge

Recently, press reports described situations in New Mexico and Maine in which PFAS-contaminated sludge that had been used as fertilizer devastated dairies whose milk had become highly contaminated as well.

19. Is EPA aware of the degree to which PFAS-contaminated sludge has historically been spread in the United States? If so, please provide specific information that includes the estimated amount of PFAS that has been spread in sludge for each year for which EPA has such information (including the amount of sludge that was spread on each type of cropland, dairy farm, other land type, etc.). For farmland sites (including dairy farms) where sludge was spread in the United States, what is the name and location of each site, and what agricultural products are produced there? If EPA does not possess any of this information, please specifically describe the steps EPA plans to take to assess and quantify the extent and location of PFAS sludge-spreading activities.

    The EPA is not aware of the degree to which PFAS chemical-contaminated biosolids or sludge has historically been spread in the United States. In general, the EPA does not have the statutory authority to track information such as site name and location, date of biosolids application on farmland (or type of crops grown), or land application elsewhere (e.g., reclamation sites). Also, PFAS chemicals were not tested as part of three EPA national sewage sludge surveys (1988, 2001, 2006). In order to track the information requested, the EPA would have to submit an Information Collection Request as required by the Paperwork Reduction Act. Though the EPA does not generally have the authority or a method to track this type of information, some states do track this type of information.

    The EPA is required by the Clean Water Act (CWA) Section 405 to review biosolids regulations (40 CFR Part 503) every two years to identify additional toxic pollutants that occur in biosolids and set regulations for those pollutants if sufficient scientific evidence shows they may harm human health or the environment. To identify pollutants per the CWA, the EPA develops biennial reviews by collecting and reviewing publicly available data on the occurrence, fate and transport in the environment, human health and ecological effects and other relevant information for toxic pollutants that may occur in biosolids. This data is used for conducting risk assessments. Information on PFAS was first captured and reported in the 2013 Biennial Review and again in the 2016-2017 Biennial Review. Any information on PFAS chemicals will continue to be captured in future biennial reviews.

    The biennial reviews for 2005, 2007, 2009, 2011, 2013, 2015 and 2016-2017 are published on the EPA's website at: www.epa.gov/biosolids/biennial-reviews-sewage-sludge-standards.

20. For each year since the passage of the Clean Water Act of 1972, please provide a list that includes the name, location, and type (i.e. publicly owned treatment works, pulp and paper industry, etc.) of sludge generators that operated in the United States. Please also indicate which sludge generator required treatment of wastewater prior to discharge.

All POTWs generate sewage sludge. EPA's Clean Watersheds Needs Survey results contain the name and location of all POTWs in the United States. The total number of POTWs identified during the last Needs Survey was 14,748. Some information about sewage sludge from POTWs can also be found in the Clean Watersheds Needs Survey results (see the EPA's website at: https://www.epa.gov/cwns).

Through the Clean Water Act Effluent Guidelines Planning process, the EPA is examining readily-available information about PFAS chemical surface water discharges to identify industrial sources that may warrant further study for potential regulation through Effluent Limitation Guidelines.

21. Is EPA aware of the fate of sludge after it is generated, by amount, type of disposal (landfilling, incineration, land spreading, composting, etc.) and source of sludge (i.e. pulp and paper mills, other source category)? If so, please provide a specific description and quantification thereof. If not, please specifically describe the steps EPA plans to obtain such information.

Some POTW information about sewage sludge post-generation can be found in the EPA's ECHO database at: https://echo.epa.gov/. Types of information that can be found include annual biosolids produced and disposed (e.g., land application or other management practice). Note that biosolids electronic reporting began in 2016, so information for 2016, 2017, and 2018 can be found in ECHO.

By way of background, the EPA's Federal biosolids annual reporting regulations (see 40 CFR 503.18, 503.28, and 503.48) apply to the following facilities:

- **Class I sludge management facilities;**
- **Publicly Owned Treatment Works (POTWs) with a design flow rate equal to or greater than one million gallons per day; or**
- **POTWs that serve 10,000 people or more.**

These facilities are required to submit an annual report if their biosolids were land applied, surface disposed, or incinerated in the reporting period. Additionally, other facilities may need to report if required by their National Pollutant Discharge Elimination System (NPDES) permit, state regulations, or enforcement actions.

For example, some states require all POTWs to submit an annual report (e.g., Texas). These annual reports are submitted to the EPA or the state agency that is authorized for the Federal biosolids program (40 CFR part 503). Currently, only eight states are authorized for the Federal biosolids program (AZ, MI, OH, OK, SD, TX, UT, WI).

Since February 2016, the EPA has electronically collected the biosolids annual report data for the POTWs where the EPA administers the Federal biosolids program (42 states and all tribal lands and territories). These data are now available through ECHO (https://echo.epa.gov). The EPA is working with the eight authorized states to electronically collect and share these data with agency as part of Phase 2 implementation of the 2015 NPDES Electronic Reporting rule (40 CFR part 127).

22. For sludge that was composted, is EPA aware of the ultimate fate of such sludge (e.g. applied to farm land, applied to municipal land, provided to general public, etc.)? If so, please provide a specific description and quantification of any amounts thereof. If not, please specifically describe the steps EPA plans to take to obtain such information.

    There is limited information on composting available in the EPA's ECHO database (e.g., which facilities report composting as a management practice). The database can be accessed at: https://echo.epa.gov/.

23. Please provide a list of all sites of PFAS-contamination that are suspected to have been contaminated in whole or in part by sludge-spreading activities, including the site name and location, source of the sludge, environmental media affected (soils, ground water, drinking water, cow's milk, crops (specify), manure, etc.), and highest concentration of each individual PFAS compound measured in each medium, and known or suspected source of PFAS in the sludge (by name or category).

    The EPA has not historically tested for PFAS chemicals in biosolids and therefore has not tracked suspected PFAS chemical-contaminated sites due to biosolids use. For example, the EPA did not test for PFAS chemicals during the 2006 (published in 2009), 2001 (published in 2007) or 1988 (supported 1993 40 CFR Part 503 Rule) national sewage sludge surveys.

    The EPA does have information on PFAS-contaminated biosolids in Dalton, GA and Decatur, AL. Additional information can be found can be found using the following links:

    https://www.atsdr.cdc.gov/HAC/pha/Decatur/Perfluorochemical_Serum%20Sampling.pdf

    https://www.atsdr.cdc.gov/HAC/pha/decatur/Blood%20PFC%20Testing%20and%20Health%20Information.pdf

    https://www.atsdr.cdc.gov/HAC/pha/decatur/InformationupdatetotheATSDRExposureInvestigationReportFINALDRAFTadditionalcomment31JAN14.pdf

    https://archive.epa.gov/pesticides/region4/water/documents/web/pdf/factsheet_pub_mtg_rev1_05-16-09.pdf

    https://archive.epa.gov/pesticides/region4/water/documents/web/pdf/d_fact_sheet_october_2010_dalton.pdf

24. Please provide a list that includes any established federal or state standards or screening levels for beneficial reuse that have been established to limit the acceptable amount of PFAS in sewage sludge, for which specific PFAS compounds (or total PFAS) do they apply, and to which geographic locations the standards or levels apply.

    There are no federal EPA standards or screening levels established for PFAS chemicals in biosolids. Certain states have promulgated regulatory requirements for PFAS in sewage sludge. For example, the state of Maine established mandatory testing of biosolids for several PFAS prior to land application. Levels must not exceed: PFOA (0.0025 mg/kg);

PFOS (0.0052 mg/kg); PFBS (1.9 mg/kg). However, the EPA does not maintain a database with all state regulatory requirements for PFAS chemicals in sewage sludge.

25. The PFAS Action Plan states that "The EPA is in the early scoping stages of risk assessment for PFOA and PFOS in biosolids to better understand the implications of PFOA and PFOS in biosolids to determine if there are any potential risks." Please provide as much specificity on EPA's plans to conduct this risk assessment as possible, including the timeline for its completion.

    The EPA is initiating problem formulation, the first of five steps in the risk assessment framework, for PFOA and PFOS in biosolids. Problem formulation is the part of the risk assessment framework that articulates the purpose for the assessment, defines the problem, and determines a conceptual plan for analyzing and characterizing risk. Problem formulation provides a strategic framework to develop risk assessments by including an overview of a chemical's sources and occurrence, fate and transport in the environment, toxicological characteristics, and factors affecting toxicity, and includes an analysis plan describing the scientific approach. During this phase, the EPA will engage states and tribes, risk managers, scientists, and members of the biosolids community to get input on the science and implementation issues. As stated in the EPA's PFAS Action Plan, problem formulation should be completed in 2020.

26. The PFAS Action Plan states that EPA will "Provide additional methods for stakeholders and the EPA to identify the presence of PFAS in concentrations of concern for media other than drinking water" and cites biosolids as one such type of media for which methods will be developed. Please provide as much specificity on the development of these methods as possible, including the timeline for their completion.

    On December 19, 2019, the EPA released a new method for drinking water (EPA Method 533). This method focuses on short chain PFAS (e.g., PFBA) and incorporates isotope dilution quantitation. EPA Method 533 complements EPA Method 537.1 (published November 2018) and supports monitoring for 11 additional PFAS. Using both methods, a total of 29 unique PFAS can be monitored in drinking water.

    EPA researchers are developing and validating laboratory methods to detect and quantify selected PFAS in air, water, and soil. For environmental samples other than drinking water, EPA researchers are:

- **Finalizing SW846 Method 8327 and its associated preparation method (Method 3512, included in Appendix B of Method 8327). Method 8327 has been validated for 24 PFAS analytes.**
- **Collaborating with the Department of Defense (DOD) to validate an isotope dilution method for the analysis of aqueous samples (ground/surface water, wastewater influents/effluents, landfill leachates) and solid samples (soil, sediment, fish tissue, biosolids). This method will be validated under Clean Water Act method protocols and may also be adapted for the SW846 methods series.**
- **Exploring the development and application of a total organic fluorine method.**
- **Developing and testing sampling and analytical methods for identifying and quantifying PFAS in air and stack emissions.**

- **Extending the use of non-targeted chemical analysis for water, air emissions, and solids.**

Questions about PFAS and TSCA

27. The PFAS Action Plan says that EPA will finalize a Significant New Use Rule (SNUR) under TSCA, first proposed in 2015, for new uses of some PFAS. When will this rule be finalized?

    In 2015, the EPA proposed the most recent SNUR on PFAS chemicals to complement the long-chain PFAS chemical phaseout under the 2010/2015 PFOA Stewardship Program. The 2015 SNUR proposed to require manufacturers (including importers) of PFOA and certain long-chain perfluoroalkyl carboxylate chemicals including as part of articles, and processors of these chemicals, to notify the EPA at least 90 days before starting or resuming new uses of these chemicals. On February 20, 2020, the EPA announced a supplemental proposed SNUR, which proposes regulations on imported products that contain certain persistent long-chain PFAS chemicals that are used as surface coatings. In developing the supplemental proposal, the EPA considered the public comments received on the 2015 proposed SNUR, as well as the new statutory requirements added by the Frank R. Lautenberg Chemical Safety for the 21st Century Act. The EPA has sent the supplemental proposed SNUR to the Federal Register where it will soon be published for public comment.

28. For each year since 2007, please list each new PFAS for which there was both a pre-manufacturing notice (PMN) and notice of commencement (NOC) received by EPA. Please provide, for each such chemical, the CAS number, date received, case number, amendment number and version, manufacturer, and commencement date (as applicable, and excluding CBI), and whether the substance was subject to a consent order.

    See Attachment 3.

29. There are a number of PFAS that have been subject to SNURs in 2002 and 2007 that remain on the TSCA Inventory. Is EPA aware of which of these PFAS substances remained in active commerce later than 2016? If so, please provide a list. If not, what is EPA doing to determine the answer to this question, since many of the PFAS subject to these SNURs were 8-carbon PFAS related to voluntary and enforcement actions taken to phase out PFAS of concern?

    See Attachment 1, which includes active PFAS chemicals with associated SNURs. When the EPA collects information in 2020 under the Chemical Data Reporting rule, information on PFAS chemicals subject to CDR will be available for 2016-2019, which will provide a more precise accounting of PFAS substances in active commerce beyond 2016. Currently, the EPA can only identify those PFAS chemicals identified as "active" under the Inventory Rule (meaning they were in commerce during the 10 years prior to 2016).

Questions about PFAS and Superfund

30. Has EPA tested all Superfund sites for the presence of PFAS? If so, please provide a list of Superfund sites at which PFAS has been found, along with the name of the PFAS chemical identified and the levels measured. If not, when does EPA plan to undertake such testing? If so, how long will PFAS be monitored for at those sites?

The EPA has been testing Superfund sites where there is reason to believe PFAS chemicals might be present. Testing generally occurs as part of the site investigation, a five-year review, or as part of remedy optimization. Testing also has occurred in conjunction with state efforts where states are making an effort to test all or many Superfund sites for PFAS chemicals.

Attachment #2 contains a list of Superfund sites where PFAS chemicals have been detected. If PFAS chemicals are detected above CERCLA screening levels at a site, the site will be monitored along with other contaminants throughout the remediation process.

Questions about PFAS and Water

31. Does EPA have monitoring results for PFAS detections in drinking water systems below the minimum reporting level in UCMR 3? If so, please provide that data. If not, please explain why not, since it is my understanding that measurements were conducted down to the detection limit of the methodologies used.

    The EPA establishes Minimum Reporting Levels (MRL) for each of the methods it publishes for the Unregulated Contaminant Monitoring Rule (UCMR). The EPA uses multi-lab validation studies to determine the lowest level at which laboratories can accurately quantify the concentration of the contaminants. By setting an MRL, the EPA assures the quality of the data reported to the Agency under the UCMR. The EPA established MRLs that range from 10 to 90 ppt for the six PFAS monitored under UCMR 3 using method 537. The EPA vetted those MRLs through the notice-and-comment UCMR 3 rulemaking. These multi- lab validation studies are typically performed before laboratories have had extensive experience using the methods and the MRLs are set at levels that all of the labs in the validation study can accurately measure. As laboratories gain more experience with the methods, their ability to measure at lower levels improves, as has been the case with Method 537. The EPA did not mandate reporting or receive results below the MRL for any UCMR 3 PFAS chemicals and therefore would not have any results below those levels to communicate to the public.

    Other methods may be appropriate for the analysis of PFAS chemicals in drinking water but they have not been evaluated by the EPA's Office of Water. Those considering alternative methods should consider the degree to which method performance has been evaluated and documented, as well as the degree to which the method capabilities align with project-specific objectives that will be used to assess data quality.

32. Is it possible to develop a validated total PFAS or total organic fluorine methodology to detect and monitor PFAS in drinking water and ground water? If so, please describe the steps required to complete the development and/or validation of such a methodology, along with expected timelines for their completion. If such a methodology was completed, how could it best be used to advance EPA's PFAS research, monitoring and regulatory efforts? Could you describe any statutory barriers that could hinder or prevent the utilization of such a methodology to support the development or implementation of regulations under each of the Safe Drinking Water, Clean Water, Emergency Planning and Community Right-to-Know, Toxic Substances Control, Clean Air or Comprehensive Environmental Response, Compensation and Liability Acts? (As non-

exhaustive examples, could you describe any potential implementation challenges of i) promulgating a total PFAS drinking water standard, ii) adding all active PFAS chemicals to the Toxic Release Inventory, or iii) designating all PFAS as hazardous substances)?

It may be possible to develop a validated total PFAS chemical or total organic fluorine (TOF) methodology to detect and monitor PFAS chemicals in drinking water and ground water, but this work is still in the very early stages of development. The final utility of such a method would also need to be determined. For example, method sensitivity (i.e., the ability to measure at low levels of concern) may prove to be a challenge for drinking water samples. If a validated method can be developed, such a method might prove to be useful as one of many measurement and monitoring methods, i.e., to provide a quick screening-level survey to identify places where more detailed sampling and measurements would be indicated. Additional precautions are necessary with TOF analytical methods because these methods would not exclusively measure for total PFAS but will also include other, non-PFAS organic compounds that include fluorine. Recent published reports indicate, for example, that approximately 30-40% of agrochemicals, including 25% of licensed herbicides, contain organic fluorine. In addition, since 1970, the percentage of fluorine-containing drugs has grown from 2% to 25% and includes brand names such as Lipitor, Prevacid, Flonase, Prozac, and Ciprobay.

The EPA is not aware of any statutory barriers that could hinder or prevent the utilization of such a methodology to support the development or implementation of regulations under the laws listed above, though the method by itself (as noted above) might not be sufficient to provide the data needed to develop or implement regulations.

A TOF methodology used as a screening method could potentially be used in Superfund preliminary assessment/site investigations and remedial investigation/feasibility studies or to aid in remedial design. It could not be used for a risk assessment or to set cleanup levels. Under CERCLA, cleanup levels are based on reducing contaminant concentrations below unreasonable risk levels. Risk levels are based on toxicity information. At this time, there is no known toxicity information on total organic fluorine (as would be measured by a TOF method), and thus there is no way to calculate risk or cleanup levels or to make a drinking water regulatory determination for total organic fluorine.

Potential challenges with designating all PFAS chemicals as hazardous substances include first arriving at a consensus definition of what is and is not a PFAS, since not all PFAS compounds are equal in toxicity and other characteristics. Another challenge is finding evidence that all PFAS chemicals qualify as hazardous substances.

In considering listing a chemical on the TRI, the EPA must determine whether data and information are available to fulfill the statutory listing criteria (EPCRA Section 313(d)(2)) and consider the extent and utility of the data that would be gathered. In summary, Section 313(d)(2) indicates that a chemical may be added to the TRI list if it is determined that there is sufficient evidence to establish that the chemical is known to cause or can reasonably be anticipated to cause (A) significant adverse acute human health effects at concentration levels that are reasonably likely to exist beyond facility site boundaries, (B) chronic human health effects, or (C) a significant adverse effect on the environment of sufficient seriousness.

For the EPA to add a chemical to the TRI list of chemicals, EPCRA Section 313(d)(2) requires that the determination is based on the chemical being known to cause a significant adverse acute or chronic human health effect or a significant adverse effect on the environment due to its toxicity. The EPA is to base this determination on generally accepted scientific principles or laboratory tests, or appropriately designed and conducted epidemiological or other population studies. Accordingly, the EPA must have sufficient information to support the addition of a PFAS chemical to the TRI list of chemicals.

As indicated in the PFAS Action Plan, for most PFAS chemicals there is limited or no toxicity information. This lack of toxicity information would pose a potential implementation challenge for adding all active PFAS chemicals to TRI's scope of covered chemicals.

33. Many entities have recommended that all PFAS be regulated as a class, instead of via a chemical-by-chemical approach. Could you describe all efforts by EPA to research, monitor and regulate PFAS as a class (including sub-classes consisting of some but not all PFAS substances) as well as any statutory, scientific or other barriers to doing so?

The research being conducted by the EPA through the use of in vitro tiered testing and computational methods may generate useful information to begin the evaluation of hazards across classes or for structurally similar PFAS chemicals, but no methodology to group PFAS chemicals as a class or as subclasses has been developed at this time. A brief description of the research being conducted by the EPA's CompTox program can be found at: https://ehp.niehs.nih.gov/doi/full/10.1289/EHP4555.

The EPA can regulate and has regulated contaminants as a group in drinking water including, for example, disinfection byproducts such as haloacetic acids and trihalomethanes. To make a determination to regulate a contaminant in drinking water, the EPA must, consistent with the Safe Drinking Water Act, consider three criteria: 1) adverse human health effects, 2) occurrence in public drinking water systems with a frequency and at levels of health concern, and 3) in the sole judgement of the Administrator, a meaningful opportunity for health risk reduction through regulation. The EPA is gathering and evaluating information on PFAS chemicals other than PFOA and PFOS. As part of the Safe Drinking Water Act regulatory process for PFOA and PFOS, the EPA will invite the public to provide additional information, which will inform the agency's future decisions for a broader class of PFAS chemicals. The EPA's proposed regulatory determination for PFOA and PFOS, announced on February 20, 2020, requests information and data on other PFAS substances, and seeks comment on potential monitoring requirements and regulatory approaches the EPA is considering for PFAS chemicals.

Under TSCA, the EPA has managed PFAS chemicals as categories in a number of instances. In the 2013 and 2015 Significant New Use Rules[1] (Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances; Proposed Rule, January 21, 2015, 80 FR 2885; and Perfluoroalkyl Sulfonates and Long-Chain Perfluoroalkyl Carboxylate Chemical Substances; Final Rule, October 22, 2013. 78 FR 62443), the EPA

[1] As well as in the supplemental proposed SNUR announced on February 20, 2020.

regulated a category of long-chain perfluoroalkyl carboxylate chemical substances, as defined at 40 CFR § 721.10536.

In the 2009 Long-Chain Perfluorinated Chemicals (PFCs) Action Plan, the EPA identified two subcategories of PFAS chemicals to address in the Action Plan: Long-Chain Perfluoroalkyl Sulfonate (PFAS) Sub-Category and Long-Chain Perfluoroalkyl Carboxylate (PFAC) Sub-Category.

In the 2010/2015 PFOA Stewardship Program, which launched in 2006, the EPA developed the program with commitments from participating companies to work toward a phaseout of not just perfluorooctanoic acid (PFOA) but also precursor chemicals that can break down into PFOA and related higher homologue chemicals.

Under TSCA, the EPA also uses category approaches in reviewing new PFAS chemicals. Upon receipt of a premanufacture notice for a new PFAS chemical, the EPA determines which sub-group of PFAS chemicals the chemical is most like (e.g., carboxylic acid, sulfonate, ether, etc.) and data for similar chemicals within that sub-group (category) are used to evaluate the new chemical.

34. Once EPA finalizes toxicity values for each PFAS or class of PFAS, does it plan to develop drinking water health advisories for each one? If not, why not, since a toxicity value in isolation will not provide a community with information that can be easily used to identify a safe level for that PFAS or class of PFAS in drinking water or groundwater.

    The agency is gathering and evaluating information, including toxicity values, to determine if health advisories or regulation are appropriate for additional PFAS.

Senator Capito:

35. Can you elaborate on how the ATSDR's Toxicological Profile factors into the EPA's regulatory processes, especially as concerns determining a potential MCL? Does the ATSDR Toxicological Profile require or directly translate into environmental standards to be set by the EPA?

    When the EPA develops the health effects document to support a regulation such as an MCL, the EPA considers all available peer reviewed studies and health assessments. As part of that regulatory process the EPA would coordinate with ATSDR and other federal partners and consider available ATSDR studies.

36. What is a realistic regulatory timeline for a determination on a potential MCL for a particular PFAS compound or class of PFAS?

    The EPA is continuing to work through the process outlined in the Safe Drinking Water Act (SDWA) as expeditiously as possible to evaluate drinking water standards for PFOA and PFOS—two of the most well-known and prevalent PFAS chemicals. This includes a formal process for public input and engagement with stakeholders and scientific advisors in order to ensure scientific integrity and transparency. On February 20, 2020, the EPA announced proposed regulatory determinations for PFOA and PFOS in drinking water, which will soon be published in the Federal Register. The EPA is also gathering and

evaluating information to determine if regulation under the SDWA is appropriate for other chemicals in the PFAS chemical family, including a request for public comment included in the proposed regulatory determinations announced on February 20, 2020. Science-driven standard development typically takes a few years to complete, particularly given the prescriptive mandates in the SDWA.

37. Can there be regulatory flexibilities under a potential MCL or other regulatory action to reduce the frequency and cost of sampling?

    a. Could the EPA's approach to regulating asbestos or VOCs in drinking water serve as a model for a flexible approach here?

    If a maximum contaminant level (MCL) is promulgated, according to the Safe Drinking Water Act (SDWA) section 1401, water systems are required to test their water for the presence of the regulated contaminant(s).

    The EPA has established a Standardized Monitoring Framework for many of its current regulatory requirements that simplifies monitoring for water systems. This is achieved by synchronizing monitoring requirements and reducing monitoring frequency for systems that are reliably and consistently below the MCL or do not detect the contaminant. Furthermore, primacy agencies, such as states, have the flexibility to issue monitoring waivers, with EPA approval, which take into account regional and state specific characteristics and concerns.

    If the EPA determines it will regulate a contaminant, the agency would consider regulatory flexibilities in monitoring and other requirements to the extent allowable under the Safe Drinking Water Act. The specific flexibilities would depend upon the characteristics of the contaminant and the data needed to determine if the contaminant occurs at a level that is reliably and consistently lower than a potential MCL.

38. Does EPA intend to add any PFAS or classes of PFAS to UMCR 5? If so, which?

The EPA intends to propose additional PFAS chemicals for inclusion in UCMR 5 but has not made final decisions about which PFAS chemicals to include. To determine which PFAS chemicals will be included in UCMR 5, the EPA plans to look at the newer methods that can detect more PFAS chemicals and at lower minimum reporting levels (MRLs) than possible in EPA's previous data collection. The EPA anticipates proposing UCMR 5 in 2020, evaluating public comments, and publishing a final UCMR 5 in late 2021. The EPA will also evaluate the new requirements of the National Defense Authorization Act (NDAA) for Fiscal Year 2020 (P.L. 116-92) when proposing and finalizing UCMR 5, subject to the availability of appropriations.

39. Will the agency conduct any sampling before UMCR 5?

The EPA uses the UCMR program authorized under the Safe Drinking Water Act to collect nationally representative data for contaminants suspected to be present in drinking

water, but that do not have regulatory standards. Currently, water systems are required to monitor for thirty contaminants in accordance with UCMR 4 (for more information, see https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule). The EPA will continue to collect available sampling data gathered by its federal, state, and local partners.

40. Under TSCA, what is EPA doing regarding SNURs for existing PFAS chemicals in the marketplace?

    See Attachment 1.

41. How many PFAS are currently used in commerce?

    Results of the retrospective reporting requirements of the TSCA Inventory Notification (Active/Inactive) Rule indicate that 602 PFAS chemicals on the TSCA Inventory are currently commercially active.

42. During the hearing, you mentioned that the EPA Office of Air is currently working on PFAS air standards and monitoring techniques.

    a. Can EPA elaborate on that work for the record and provide a timeline for finalization of standards or monitoring techniques?
    b. While these standards and monitoring techniques are being developed, how has the EPA certified or monitored existing facilities that are already being employed to destroy, via combustion, Department of Defense stockpiles of FFFO?
        i. How confident is the EPA that this mitigation of the Department of Defense's legacy PFAS material is not simply shifting this pollution to a different medium, namely air?

    The PFAS Action Plan describes the EPA's approach to identifying and understanding PFAS chemicals, approaches to addressing current PFAS chemical contamination, preventing future contamination, and effectively communicating with the public about PFAS chemicals. Specifically, the Action Plan identifies several areas of active research including development of validated analytical methods for accurately testing PFAS chemicals in drinking water and other water matrices (wastewater, surface water, groundwater), as well as in solids (solids, sediment, biosolids, fish tissue) and in air (ambient, stack emission, off-gases), and treatment and remediation technologies for PFAS chemicals in the environment.

    The EPA continues to assess air monitoring and measurement methods. Developing these methods is a first step toward characterization of PFAS chemicals in the air. The EPA has not set a timeline for finalization. The EPA's Office of Research and Development is currently studying PFAS incineration questions in experimental simulations, sampling and analytical methods development, and industrial field sampling. Research is examining the thermal stability of PFAS compounds, the ability to fully capture and identify PFAS compounds and their thermal decomposition byproducts, and the efficacy of emission control technologies.

The EPA has also heard from state air agencies concerned about environmentally correct ways of disposing of PFAS chemical products. The EPA will continue to partner with state air agencies, as well as other federal agencies and local communities, to limit human exposure to potentially harmful levels of PFAS chemicals in the environment.

Concerning standards, please note that the Action Plan discusses mitigating PFAS chemical exposures including moving forward with how best to designate two specific PFAS chemicals (PFOA and PFOS) as hazardous substances using one of the available existing statutory mechanisms. Currently, the EPA is initiating the regulatory development process for listing PFOA and PFOS as CERCLA hazardous substances.

Senator Cramer:

43. Mr. Ross, both you and Administrator Wheeler have stated that you intend to move forward with a rulemaking process to set an enforceable maximum contaminant levels (MCLs) for PFAS under the Safe Drinking Water Act. According to your website, there are three criteria that must be met in order to set a national MCL under the Safe Drinking Water Act. One of them is: "The contaminant is known to occur or there is a high chance that the contaminant will occur in public water systems often enough and at levels of public health concern." What metrics do you use to determine the prevalence or "high chance" of a substance in public waters systems nationally?

    The EPA collects contaminant occurrence data and assesses whether there is sufficient data and information to characterize known or likely occurrence in public water systems. The EPA primarily relies upon data collected under the UCMR, but also uses data from many sources to evaluate contaminant occurrence. When evaluating occurrence, the EPA reviews nationally representative finished drinking water occurrence data, but non-national data may also be used. The EPA compares occurrence data to a Health Reference Level (HRL) for a contaminant. HRLs are developed by the EPA using the best available, peer reviewed risk assessment for the contaminant and represent a level of health concern in drinking water. Based upon this analysis, the EPA evaluates if a contaminant "is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern." The EPA considers monitoring data, contaminant concentrations, contaminant characteristics, and other information to determine whether the contaminant may occur in public water systems at levels of public health concern.

44. The publicly available maps shows high concentrations of PFAS in certain regions while certain areas have very little, if any. There is concern that we create a national regulatory burden for everyone rather than proactively targeting the communities most in need. As you work through the rulemaking process, are there tools you can use to try and address this in a more targeted, regional fashion rather than a national mandate which will require water providers everywhere to do testing?

    If a maximum contaminant level (MCL) is promulgated, according to the Safe Drinking Water Act (SDWA) section 1401, water systems are required to test their water for the presence of the regulated contaminant(s).

The EPA has established a Standardized Monitoring Framework for many of its current regulatory requirements that simplifies monitoring for water systems. This is achieved by synchronizing monitoring requirements and reducing monitoring frequency for systems that are reliably and consistently below the MCL or do not detect the contaminant. Furthermore, primacy agencies, such as states, have the flexibility to issue monitoring waivers, with EPA approval, which take into account regional and state specific characteristics and concerns.

If the EPA determines it will regulate a contaminant, the agency would consider regulatory flexibilities in establishing monitoring and other requirements to the extent allowable under the SDWA. The specific flexibilities would depend upon the characteristics of the contaminant and the data needed to determine if the contaminant occurs at a level that is reliably and consistently lower than a potential MCL.

Senator Gillibrand:

45. Mr. Ross, the public has a right to know when PFAS are present in their drinking water or groundwater, as well as when these chemicals are released into the air. Does the EPA currently require monitoring or reporting for releases of PFAS into air and water?

Currently the EPA does not require monitoring of PFAS chemicals in drinking water. The EPA previously required water systems to monitor for six different PFAS chemicals under Unregulated Contaminant Monitoring Rule (UCMR) 3. The EPA uses the UCMR program, authorized under the Safe Drinking Water Act (SDWA), to collect nationally representative data for contaminants suspected to be present in drinking water, but that do not have regulatory standards. Water systems must include sampling results on UCMR contaminants that are detected in drinking water in their annual Consumer Confidence Reports (CCRs). Water systems must make these reports available to their customers annually. Thus, UCMR 3 PFAS results (from monitoring between 2013-2015) have already been reported in Public Water Systems' previous CCRs. The EPA also includes UCMR sampling results in the publicly available National Contaminant Occurrence Database. The EPA intends to propose additional PFAS chemicals for the next round of nationwide drinking water monitoring under the UCMR program.

The Action Plan identifies several areas of active research, including development of analytical methods for accurately testing PFAS in air (ambient, stack emission, off-gases). Concerning standards, please note that the Action Plan discusses mitigating PFAS exposures, including moving forward with how best to designate two specific PFAS (PFOA and PFOS) as hazardous substances using one of the available existing statutory mechanisms. The EPA has initiated the regulatory development process for listing PFOA and PFOS as CERCLA hazardous substances.

a. Why has EPA not used its existing authority under the Toxic Release Inventory to require polluters to report releases of PFAS to the public?

The EPA initiated a rulemaking published in the Federal Register on December 4, 2019, titled: Advanced Notice of Proposed Rulemaking, Addition of Certain Per-

and Polyfluoroalkyl Substances; Community Right-to-Know Toxic Chemical Releases Reporting.

46. Is EPA still approving new PFAS chemicals for commercial use under the Toxic Substances Control Act?

    a. If yes, how many new PFAS chemicals have been approved under the current Administration?

    The PFOA Stewardship Initiative began in 2006. Since that time, the EPA has reviewed 268 PFAS chemical substances and has received a total of 148 Notices of Commencement (NOC) for PFAS chemicals that had undergone new chemicals program review. A NOC indicates intent to commence manufacture or import of a chemical; hence it is EPA's best indication of whether a PFAS chemical may have entered commerce. Two of these NOCs have been received since June 22, 2016; the remaining 146 were received prior to that date. The EPA also receives exemption notices for certain low-volume chemical substances which are exempt from full premanufacture notice (PMN) review under TSCA section 5 provided they meet the criteria (e.g., chemical substances manufactured at 10,000 kg/year or less may be subject to a Low-Volume Exemption, LVE) and maintain certain conditions/controls throughout the duration of the exemption. Since 2006, the EPA has received a total of 328 LVEs for PFAS chemicals and granted 272 of them. Of those granted, 262 were granted prior to June 22, 2016 and 10 were granted after that date.

    It is important to understand that most of the PFAS chemicals that the EPA receives for review under the New Chemicals Review program are intended as replacement substances for existing long-chain PFAS chemicals.

47. You have indicated that the EPA intends to issue a regulatory determination on whether to regulate PFAS under the Safe Drinking Water Act by the end of the year. Once your regulatory determination has been made, how long does EPA intend to take to set an enforceable Maximum Contaminant Level for PFAS in drinking water?

    On February 20, 2020, the EPA announced proposed regulatory determinations for PFOA and PFOS in drinking water, which will soon be published in the Federal Register. The EPA must carefully evaluate these contaminants in accordance with the criteria in the SDWA. The process requires public input and engagement with stakeholders and scientific advisors in order to ensure scientific integrity and transparency. Typically, science-driven standard development takes a few years to complete, particularly given the prescriptive mandates of the SDWA.

Senator Inhofe:

48. There are claims that the Environmental Protection Agency's (EPA) health advisory is too low given the Agency for Toxic Substances and Disease Registry's (ATSDR) minimum risk level. It is my understanding that the EPA's health advisory and the ATSDR's level are answers to different questions.

a. Is this accurate?
b. If so, what are those differences?

The ATSDR's minimal risk levels (MRLs) and the EPA's drinking water health advisories (HAs) are two different tools that are used in different situations.

There has been significant confusion regarding the differences between recent draft screening values (Environmental Media Evaluation Guides [EMEGs]) developed by the Agency for Toxic Substances and Disease Registry (ATSDR) and the EPA's HAs for PFOA and PFOS. Questions generally focus on which may be more appropriate for analyzing potential adverse health effects associated with exposure to those chemicals. The reality is the two are designed for different purposes given the different missions of the agencies.

The EPA's lifetime HAs can be used by communities as they consider the appropriate actions to reduce exposure to PFOA and PFOS in drinking water. HAs are designed to protect the most sensitive populations from potential health effects associated with PFOA and PFOS in drinking water over a lifetime of exposure. ATSDR's screening values are designed to identify areas where exposure to PFOA and PFOS require further site-specific study. The screening values are conservatively designed to screen out areas that do not require further risk-based analysis. ATSDR and the EPA made different policy decisions to develop their respective water concentrations (i.e., EMEGs and HAs). These differences are related to study selection, exposure assumptions, uncertainty factors, and other relevant criteria, per each Agency's guidance.

49. The ATSDR report from last summer states, "The available human studies have identified some potential targets of toxicity; however, cause and effect relationships have not been established for any of the effects, and the effects have not been consistently found in all studies." To be clear, does this mean that the report did not establish "causation" relative to various health outcomes that were being cited?

The EPA cannot speak to ATSDR's conclusion. ATSDR is the appropriate agency to answer this question.

50. Given the various recent studies of PFAS chemicals that have taken place, including one clinical trial of PFOA doses administered to humans leading to average blood levels of 175,000 parts per *billion*, is EPA tracking the studies?

    a. If so, what role will they serve in informing the various regulatory actions the agency will be taking in the coming months?
    b. How will EPA determine which are most "informative" for the purpose of regulatory decisions?

    As a part of the evaluation for the EPA's proposed regulatory determination on PFOA and PFOS, the EPA reviewed newly available scientific information including human health studies. Future agency actions will consider new data as it becomes peer reviewed and publicly available in a final version.

51. Data from the annual CDC NHANES survey and the Red Cross show that as of 2015, the average levels of PFOA and PFOS in the general U.S. population have declined 70-80 percent since 2000. Given this data, does EPA expect that these levels would continue to decline?

    The EPA is not making any assumptions with respect to the future trajectory of PFOA and PFOS average levels in the general U.S. population. Our current data indicates that the existing PFOA and PFOS released over the past 80 years may remain in the environment for centuries to come and other PFAS chemicals may degrade into different formulations in the environment, so we cannot rule out future exposures with future impacts on population serum levels. Note that current data shows that the half-life of these compounds in humans is less than five years. The EPA will continue to track NHANES and other rigorous scientific data sources for purposes of increasing our understanding of exposures to PFOA, PFOS, and other PFAS chemicals of concern.

52. What is EPA's understanding of the means of exposure for PFAS chemicals for people overall?

    a. Is it primarily through drinking water?

       The EPA considers drinking water to be one route of exposure but certainly not the only means of exposure. The potential relative contributions of PFAS chemical exposure pathways other than drinking water have yet to be completely quantified, and exposure depends very much on site-specific context. The EPA will continue to gather data and conduct research to improve our understanding of all relevant pathways of human exposure.

       Means of potential exposure other than drinking water identified in EPA's PFAS Action Plan include:

       • Consumption of plants and meat from animals, including fish that have accumulated PFAS chemicals;
       • Consumption of food that was in contact with PFAS chemical-containing products (e.g., some microwaveable popcorn bags and grease-resistant papers);
       • Use of, living with or otherwise being exposed to commercial household products and indoor dust containing PFAS chemicals, including stain- and water-repellent textiles (including carpet, clothing and footwear), nonstick products (e.g., cookware), polishes, waxes, paints, and cleaning products;
       • Employment in a workplace that produces or uses PFAS chemicals, including chemical production facilities or utilizing industries (e.g., chromium electroplating, electronics manufacturing, or oil recovery); and
       • In utero fetal exposure and early childhood exposure via breastmilk from mothers exposed to PFAS chemicals.

    b. If so, what percent of exposure risk is likely via drinking water versus other means?

       As the research is still emerging it is not possible for the EPA to provide a percent of exposure risk for all PFAS chemicals at this time. Exposure to PFAS chemicals varies on a case by case basis, and the EPA cannot generalize for all exposure

scenarios. For PFOA and PFOS, the EPA attributed 20% of the total exposure to drinking water based on the approach described in the EPA Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000). As stated above, available data indicate there is the potential for significant exposure to PFOA and PFOS from sources other than drinking water. The uncertainty in the available exposure information for PFOA, PFOS, and other PFAS chemicals precludes a more data-derived value at this time.

53. Other countries have been dealing with this issue as well and might be further along in their dealings with these chemicals.

    a. Is EPA looking at the international response?

    The EPA is engaged with the international community to address PFAS chemicals. The EPA has engaged with international entities in Australia, Canada, and the EU. For example, the EPA has had discussions with the Australian Department of the Defense to exchange information on methods to treat and detect PFAS chemicals. Other international organizations, such as the International Organization for Standardization and ASTM International, have developed analytical methods that the EPA has explored for use. Also, the EPA's literature reviews for PFOA, PFOS, and other PFAS chemicals included toxicity information from international authorities. The EPA will continue to coordinate with international partners, as well as our domestic partners from other federal agencies, states, tribes, industry groups, associations, local governments, communities, and the public.

    b. How does the EPA's health advisory level compare to other countries?

    Health based drinking water values generally range from 0.07 ug/L-10ug/L (70 ppt – 100ppt) for PFOA and between 0.07 ug/L-0.6ug/L (70 ppt – 600 ppt) for PFOS world-wide. The EPA is at the more protective end of this range at 0.07 ug/L (70 ppt). However, science is rapidly evolving on this topic and many of these values were established more than 4-5 years ago. See the Interstate Technology and Regulatory Council's (ITRC) website for a summary of these values for water at: https://pfas-1.itrcweb.org/fact-sheets/.

Senator Markey:

54. Out of the C8 PFAS chemicals on the Toxic Substances Control Act inventory, how many are still being actively used in commerce in 2019?

    Approximately 50 C8 PFAS chemicals are marked active on the Toxic Substances Control Act (TSCA) inventory; however, 32 of these are designated as CBI and may not be readily identifiable on the non-CBI TSCA Inventory.

Senator Sanders:

55. Elevated and unsafe levels of perfluoroalkyl substances (PFAS) have been found in hundreds of sites and at least one municipal water system in Vermont, and have contaminated public water

and other natural resources for an estimated 16 million people nationally. Despite this clear and serious health risk, the EPA has yet to make a final regulatory determination to regulate PFAS chemicals as a drinking water contaminant under the Safe Drinking Water Act. Please provide a timeline for a final regulatory determination to regulate PFAS chemicals as a drinking water contaminant under the Safe Drinking Water Act.

On February 20, 2020, the EPA announced proposed regulatory determinations for PFOA and PFOS in drinking water, which will soon be published in the Federal Register. The EPA must carefully evaluate these contaminants in accordance with the criteria in the SDWA. The process requires public input and engagement with stakeholders and scientific advisors in order to ensure scientific integrity and transparency. Typically, science-driven standard development takes a few years to complete, particularly given the prescriptive mandates of the SDWA.

56. Will you commit to meeting the Safe Drinking Water Act statutory deadlines to set a maximum contaminant limit once the EPA has made the regulatory determination to regulate PFAS chemicals as a drinking water contaminant?

    The EPA is committed to complying with the Safe Drinking Water Act.

57. Several states, including my home state of Vermont, have set health advisories for drinking water containing PFAS chemicals that are significantly more stringent than the EPA's lifetime health advisory level. The most recent update to the Toxic Substances Control Act (TSCA) contained a provision that protects states that had more stringent standards on the books before April 22, 2016 (Sec. 13 State-Federal Relationship, 15 USC § 2617(e)(1)(A)). Will you commit to avoiding any actions that would preempt states' ability to enforce health advisory levels for PFAS enacted before April 22, 2016 that are more stringent than the EPA's standards? If you will not make this commitment, please describe the specific instances in which you believe TSCA would prevent states from enforcing more stringent requirements the state had established before April 22, 2016.

    The preemption provisions of the Lautenberg Amendments to TSCA contain important directions that address when state actions will be preempted or not. The EPA will follow all regulatory requirements of the statute with regard to preemption.

Senator Sullivan:

58. You and the Administrator have stated that you are working through your action plan to set an MCL for and list as hazardous substances under CERCLA some set of PFAS chemicals this year. If listed under CERCLA owners or operators of facilities where a release took place would be strictly liable for cleaning up the site and the costs. In Alaska aircrafts are vital for transportation, supplies, and general access to various communities. Current FAA regulations require certain airport operators to maintain Aircraft Rescue and Firefighting equipment and systems, including Aqueous Firefighting Foams (AFFF). These AFFFs must meet military specifications that

include certain PFAS chemicals. Thus, airport operators have been required by federal law to use and discharge for training PFAS. Many airports in my state are owned and operated by the State or local municipalities. If PFAS chemicals are listed as hazardous under CERCLA, will these State and local governments be liable for both the clean-up and the costs from discharges of chemicals that were mandated by federal law? Can you under existing law exclude these entities from liability if the costs threaten to bankrupt a city or other entity? Finally, would an exclusion from liability for a state or local government if the release that contaminated the site were mandated under federal law, still allow for clean-up of affected sites?

The EPA has initiated the regulatory process for designating PFOA and PFOS as hazardous substances under CERCLA. If PFOA and PFOS are designated as hazardous substances, potentially responsible parties could be liable under CERCLA for releases of PFOA or PFOS so long as a defense or exemption does not apply. As part of the regulatory process for designating PFOA and PFOS as hazardous substances under CERCLA, the EPA intends to solicit public comment on the potential impacts of this designation and would consider any comments received in making its final decision.

59. Are their accepted techniques to properly clean up and dispose of PFAS contaminated soil? For instance can contaminated soil be burned to remediate a site?

As part of the PFAS Action Plan, the EPA is gathering information to better understand treatment and disposal issues with respect to PFAS chemical waste and has initiated the regulatory development process for listing PFOA and PFOS as CERCLA hazardous substances. The EPA is currently evaluating the use of incineration and other disposal techniques to effectively treat and dispose of PFAS chemical waste. Depending on various technical considerations including the volume and toxicity of the specific PFAS chemical wastes, thermal destruction in high temperature incinerators may be the preferred treatment method assuming sufficient temperatures and residence times are achieved to ensure adequate PFAS chemical destruction, and assuming adequate pollution controls are utilized.

60. Are existing funding sources to help affected communities adequate given the growing scope of sites that have been discovered?

The Superfund Remedial program addresses many of the worst contaminated sites on the National Priorities List (NPL) in the United States by conducting investigations, implementing long-term cleanups, and overseeing response work conducted by potentially responsible parties (PRPs) at NPL sites. Under CERCLA, Superfund cleanup may be accomplished by multiple funding sources, including funding provided by Congress and by states (e.g., state cost share), funding in special accounts provided by PRPs through settlement agreements for specific sites, PRPs performing the cleanups or other federal agencies conducting cleanups. When using its appropriated dollars at sites without responsible parties, the EPA selects new construction projects for funding based on prioritization of those sites that present the greatest risk to human health and the environment in addition to other programmatic factors. At the end of most fiscal years, some projects that rank lower in priority do not receive construction funding.

The EPA has initiated the regulatory process for designating PFOA and PFOS as hazardous substances under CERCLA. With such a designation, potentially responsible parties could be liable under CERCLA for PFOA or PFOS so long as a defense or exemption does not apply. As part of the regulatory process, the EPA intends to solicit public comment on the hazardous substance designation's potential impacts and would consider any comments received in making its final decision.

Senator Wicker:

61. Water utilities in rural and underserved communities may struggle to gather the resources necessary to filter PFAS out of their system. If EPA sets a maximum contaminant level (MCL) for certain PFAS chemicals, what will be the timeline for compliance for a noncompliant water utility? Additionally, how will EPA work with rural and underserved communities that have limited resources to ensure compliance?

    Any timelines for compliance will be consistent with those established by the Safe Drinking Water Act (SDWA). If the EPA determines it will regulate a contaminant, the agency could consider regulatory flexibilities in establishing monitoring and other requirements to the extent allowable under the SDWA. The specific flexibilities would depend upon the characteristics of the contaminant and the data needed to determine if the contaminant occurs at a level that is reliably and consistently lower than a potential MCL.

62. Will EPA be re-opening closed Superfund sites to evaluate the area for PFAS contamination? Will existing Superfund sites be reevaluated for PFAS contamination?

    It may be appropriate to reconsider prior remedy decisions at some Superfund sites in light of new information regarding potential PFAS chemical contamination. The EPA considers new site information as it becomes available. The lead federal agency (EPA for private sites; federal agencies for federal facility sites) uses site knowledge (operations and historic activities) as well as existing data to determine whether releases of PFAS chemicals into the environment may have occurred. If releases of PFAS chemicals may have occurred, the lead Federal agency takes steps to evaluate the presence of PFAS chemical contamination, including the sampling and analysis of drinking water, groundwater, soil and other environmental media. The Five-Year Review is the principal tool used to evaluate new information that becomes available post-remedy implementation at Superfund sites, including the potential presence of new contaminants or updated toxicity information.

63. Have there been any economic impact studies to determine at the State level how the regulation of PFAS will affect drinking water programs and cleanup programs?

    On December 3, 2019, the Congressional Budget Office provided a Cost Estimate of "S. 1507, the PFAS Release Disclosure and Protection Act of 2019." The EPA is not aware of any additional studies on the economic impact of regulating PFAS chemicals.